

MILITARY ILLUSTRATED

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Disaster at D-Day

Sharpe at Badajoz

**Buffalo Soldiers
Strange Warriors**



**WIN A
D-DAY TOUR**
inside

Military Illustrated

Past & Present



Front cover
American mortar crew during
Normandy Campaign,
June 1944.



Back cover
Officer of 1st Bengal
Lancers (Skinner's Horse)
and officer of 2nd (Prince of
Wales' Own) Gurkha Rifles,
1897, painted by Bryan K.
Fosten.

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Waterloo

Your review of *Waterloo: New Perspectives* by David Hamilton-Williams seemed to be a case of "damned with faint praise". As an enthusiast of the Napoleonic period I found his book refreshingly original. The author has used a great many relatively unknown foreign primary and secondary historical sources — allowing the Belgian, Dutch and Prussian soldiers to speak for themselves. His thorough academic research forces the reader to the conclusion that some well accepted authorities from the past were, putting it kindly, a little economical with the truth.

With his book David Hamilton-Williams has revealed the highly selective nature of Siborne's *Waterloo Letters*. Some of Siborne's correspondents, such as Mercer made disparaging remarks about their battlefield performance. Other correspondents dismissed the role of the Allies from their letters, quite rightly because they themselves did not fight alongside them or observe them on the battlefield. As a modern reader of such comments it is easy to re-interpret them as value judgements on the behaviour of the other Allied units.

For example, in Siborne's, *History of the Waterloo Campaign*, Col. Sir De Lacy Evans in letter 31 explains what he saw of the

charge of the Union Brigade in repulsing the attack by D'Erlon's Corps. As an aside he says that, "I saw nothing of the Belgian Light Dragoons in the mele'e." An innocuous remark, he saw nothing of them. As a busy staff officer engaged in a desperate struggle on a smoke enshrouded battlefield it is unlikely that he would observe anything beyond the carrying out of his staff duties. However, when comments such as this are repeated by others in the Siborne work they form a collection of negative statements which can be re-interpreted as factual value judgements. Again this re-interpretation is reinforced since there are no letters from foreign officers to give their side of the story. The implied logical conclusion then, is that the Dutch-Belgians were not seen because they were not present — they had either disappeared into the Forest of Soignes or run away to Brussels!

In the example quoted above Hamilton-Williams points out that it was the Belgian Light Cavalry which attempted to rescue the Heavy Brigade some time later. Indeed the British light cavalry had orders not to engage in such rescue actions. Until I read Hamilton-William's book I had been under the impression that the Belgian cavalry had hardly moved forward until the end of the

battle let alone been the only light brigade to cover the withdrawal of the Union Brigade.

Paul F. Brunyee
Malton, Yorkshire

Kninja Fighters

I hardly have words to express my feelings after reading the cheap sensational rubbish masquerading as 'journalism' in *Military Illustrated* No. 68. Laughingly called 'the Kninja Fighters of Serbia' an article by Richard Schneider describes a day in the life of a Serbian unit which makes the article on Theodore Eicke seem unbiased!!

Mr. Schneider lovingly drools over each detail of his day, the only virtue of his writing is that he fails to convince us that this band of butchers are worthy of our attention.

It is sad enough that the western powers did nothing to stop this return to the 1940's and do not now seem to intend to seriously pursue as war criminals the savages on all sides who have butchered, raped and tortured so many innocent civilians, once again the 'lamps are going out...'

G.A. Embleton,
Omnens, Switzerland.

D-Day competition

This month *Military Illustrated* launches a two-part competition giving you the chance to be part of the 50th anniversary celebrations of D-Day. HOLT'S BATTLEFIELD TOURS have reserved for one of our readers a seat on their unique one day air tour of the Normandy Beaches on June 6th.

Departing at 0730, you fly direct to Deauville with breakfast on board your flight. There you join your coach and begin a guided tour which will include the epic gliderborne attack on Pegasus Bridge, the British and Canadian beaches — Gold, Juno, and Sword — the Mulberry Harbour and Museum at Arromanches and the Commonwealth War Graves Cemetery at Bayeux. Your return flight leaves Deauville at 2100, arriving in Stansted at 2045 UK time with evening meal on board.

In addition to this first prize, there are two second prizes of copies of SALAMANDER'S superb publication D-DAY: OPERATION

OVERLORD (£24.99), and five third prizes of free guest admission to the D-Day exhibition at the D-DAY MUSEUM, PORTSMOUTH.

To enter this competition, answer the three multiple-choice questions below this month and three more questions in next month's MI and send all six answers on a postcard or the back of a sealed envelope with your name and address to: D-Day Competition, *Military Illustrated*, 43 Museum Street, London WC1A 1LY. Overseas readers should use airmail postage. Your answers must arrive no later than May 15th 1994. The sender of the first correct entry drawn from all the entries received by this date will win the air tour, the next seven correct entries drawn will receive the runners-up prizes. The competition is open to all readers except employees of *Military Illustrated* Ltd. and their immediate relatives. The editor's decision on all entries is final and no correspondence can be entered into.

Winners' names and the correct answers will be published in the June 1994 issue of MI.

This month's questions:

1. Name the only Allied general to land with the first waves of the invasion forces on 6th June 1944.

a) Brigadier-General Theodore Roosevelt Jr

b) Major-General Andrew Jackson Jr

c) Brigadier-General John Chandler

2. Name the winner of the Victoria Cross on 6th June 1944.

a) Major Richard Beatty

b) Sergeant Major Stanley Hollis

c) Lieutenant Charlie Keppell

3. What did the codename acronym PLUTO stand for?

a) Pipe Line Up to Operation

b) Pipe Line Up to Overlord

c) Pipe Line Under The Ocean

Three more questions in next month's MI.

Triumph of the Will (VRL:E)
Marching for the Fuhrer
 (VRL:E)
Hitler Caput (VRL:E)
Yalta, Tehran, Potsdam/The
Kursk Bulge (VRL:E)
The Defeat of Military Japan
 (VRL:E)
The Combat Newsreels of
Adolf Hitler's Third Reich
 (Tomohawk Films: E)
The Occult History of the Third
Reich (Columbia-Tristar: E)

Video Rights Ltd. have released two historically important documentaries made during the Third Reich. *Triumph of the Will/Triumph des Willens* (1935) is Leni Reinfeinstal's controversial documentary concerning the 1934 Nazi Party Congress in Nuremberg. It opens with Hitler descending god-like from the clouds in an aircraft, while thousands eagerly await his arrival below. The film records the mass rallies, and speeches by all the main Nazi leaders, climaxing with Hitler's.

Marching for the Fuhrer/Des Marsche zum Fuhrer (1940) records how each summer thousands of Hitler Youth travelled on foot across mountains and through forests, fields and towns, from their home towns to the annual Nazi Party Congress in Nuremberg. There they participate in ceremonies and listen with rapt attention to a speech by Hitler, to whom they swear allegiance. They then march to Landsberg for torchlight parades commemorating the place where Hitler wrote *Mein Kampf* while imprisoned in the fortress, and listen to a speech by Nazi Youth Leader Baldur von Schirach. The film chillingly conveys how German youth was prepared both physically and psychologically for war.

Video Rights Ltd have also released three Russian-made World War Two documentaries



Japanese sword practice during World War Two, from *The Defeat of Military Japan*.

with overlaid English-language commentaries. All were made by the Central Documentary Film Studio in Moscow. The 50 minute *Hitler Caput* (1963) was not intended to be a definitive history of the Great Patriotic War or a record of strategy and personalities, but more an impressionistic record which emphasises the bravery of the common Russian soldier. Final scenes show what are alleged to be Hitler's charred remains.

Tehran, Yalta, Potsdam is a 30 minute documentary made in 1985 about the co-operation between the Allies to bring about the defeat of Nazi Germany. Unusually, the war material brought to Russia by the North Atlantic convoys is acknowledged, although the narrator points out it represented no more than 4% of Russian war production. On the same tape is *The Kursk Bulge*, a 20 minute documentary originally called *The Arc of Kursk* made in 1983. It includes both wartime footage of the famous tank battle and views of the battlefield today. This is the same documentary which was previously released by GMH Entertainment under the title *The Tank Battle of Kursk* (see M116).

The Defeat of Military Japan is a 70 minute documentary made in 1945. It begins with scenes of a recently defeated Japan, then goes back several years to explain how the Japanese people were indoctrinated with the idea of world conquest. The Russian refusal to attack the Japanese until the closing stages is justified by the need to bring the war to a swift conclusion, and prevent the Japanese from continuing the war from Manchuria! Of the three films, this bears the least resemblance to reality, but offers an interesting view of Russian history as explained to Russians during the Cold War.

In 1988 Tomohawk Films released four videos consisting of German combat newsreels (reviewed M122). These were made up from film cans rescued by a British Intelligence officer who found them in a burning Gestapo Headquarters near Hannover. Tomohawk Films restored and re-edited the films to form four programmes, each with a new soundtrack consisting of sound effects and German marching songs. Two of the programmes dealt with the Russian Front, the third was a mixture which included the

famous 'Channel Dash' by the Scharnhorst, Prinz Eugen and the Gneisenau, and the abortive Dieppe Raid, while the last portrayed the Afrika Korps in action. The programmes are now more sensibly being made available on a single cassette lasting some 90 minutes under the title *The Combat Newsreels of Adolf Hitler's Third Reich*. In response to numerous requests, a fourteen track audio cassette of the marching songs heard on the soundtrack is now available under the title *Military Music of Adolf Hitler's Third Reich*. The video and tape cost £15.95 and £7.95 respectively from Tomohawk Films, Freepost, Twyford, Winchester, Hants SO21 1NJ.

Columbia-Tristar are releasing on sell-through two sets of documentaries previously only available on mail-order from Time-Life (reviewed M152). *The Occult History of the Third Reich*, despite the daunting title, is an interesting piece of filmed research. *The Encyclopaedia of World War Two*, originally released on ten tapes, is now far more economically housed on four.

Stephen J. Greenhill

The German Army 1933-45

by Chris Ellis. Ian Allan; ISBN 0-7110-2193-7; 128pp; mono illu. throughout; bibliography; £10.99.

It is a shame, but publishers Ian Allan have just not got this series of *Collector's Guides* right, and nowhere does it show more than here. The small typeface and illustrations have already been commented upon in this column. When this is compounded by a plethora of well-known photos and largely amateurish line drawings of insignia, etc; a bibliography which only lists half a dozen titles and does not mention Bander-Taylor, Mollo or Quarrie; and a lack of index — well, this reviewer begins to wonder...

Chris Ellis, best known as former editor of *Airfix Magazine* and collaborator with Peter Chamberlain on a number of books, is no slouch when it comes to the subject matter, and the text is capable but still not geared to the collector's needs. This is really a 'Boy's Own' guide to the German army, more suited to the old Almark style of the early 1970s than to today's needs. Sorry — not recommended.

Letters From The Front

edited by Ian Fletcher. Parapress; ISBN 1-898594-07-4; 128pp; mono plates & maps; notes, appendix & index; £15.95

Some war diaries and memoirs stand out in the memory, and this slim volume will certainly be included. It is the collected letters of Lieutenant Brian Lawrence, written home from the Western Front during 1916-17. Junior officers at this period in the war had lifespans often measured only in minutes, so Lawrence was lucky "only" to have suffered severe injuries to head, chest and shoulder before being repatriated.

Much of his story is familiar, the mud, damp and decay, the constant bombardments; what lifts this above the average First World War memoir is the insight it gives into the mentality of a Grenadier Guards gentleman-officer of the period. Contrasts include his carelessness for his own life, but constant complaints about the lack of decent food and wine (even though he does seem to have been luckier than most in this respect!) He is also careless of the lives of the men under his command, which at first appears callous, but emerges in the end more as a pragmatic acceptance that everybody's life is already forfeit, so why bewail one — or a hundred — more casualties. It is a realistic approach to war which has probably saved more than one person's sanity. An excellent, although disturbing, read.

Kipling's Soldiers

compiled by George & Christopher Newark, colour plates by Bryan Fosten, mono illustrations throughout; 128pp, 24 plates; £15.95 plus P&P £1.55 UK, £2.75 Europe, £4.75 elsewhere, from Pompadour Gallery, PO Box 11, Romford, Essex RM7 7HY.

Many readers will be familiar with Pompadour's attractive coloured postcard sets of uniformed figures painted by Bryan Fosten (see page 34). Now they produce their first book: a charming idea, originally designed and attractively executed. A selection of 24 of Kipling's "soldier poems" — all the best-known ones like *Gunga Din*, *Fuzzy-Wuzzy*, *Tommy*, *Danny*, *Deever*, *Mandalay*, and a good many less-often heard — has been assembled in a small but very nicely produced hardback. They are interspersed with many black-and-white photos and engravings of relevant subjects

and periods, evoking the real look of the old Imperial army. The unique feature is the series of 24 colour plates by Mr Fosten, inspired by each of the poems. Figures in accurate uniforms, specific to suitable units, are placed in simple but often original compositions echoing the sense of the poems. We all have odd snatches of Kipling's verse rolling around the back of our memories; to sit down and read them right through, brought to life by these clever, pleasing colour plates, is a quiet joy. The modern ear has to learn to "tune out" some of Kipling's now inevitably outdated dialect style; but it's easy enough to get beyond that, to his deep understanding of and sympathy for the old British professional army. Congratulations to all concerned; warmly recommended (and a most suitable present for younger readers to buy for older relatives, raised on Kipling from childhood).

The History of The Duke of Wellington's Regiment (West Riding) 1702-1992

by J.M. Brereton & A.C.S. Savory; 446pp, ill. throughout, 12 colour plates, index, appendices, biblio; £30.00 plus £4.00 P&P from Regimental HQ, Duke of Wellington's Regt. (West Riding), Wellesley Park, Halifax, W. Yorks HX2 0BA

This is a sumptuously produced history of a very famous British regiment of line infantry, immortalised by its historical association with Britain's greatest soldier. It follows the 33rd and 76th from their raising to their amalgamation as 1st & 2nd Bns. of "the Dukes" in 1881, and the service of the combined regiment ever since. Between them the ancestral regiments and the battalions of the modern regiment must have served in every important theatre of war,

on four continents. At a time when the county backbone of the British infantry line is being subjected to yet another round of merciless amalgamations, and disbandments in effect if not in name, these stories need telling again and again. The book is particularly well prepared and printed; there are some 120 mono illustrations, 12 colour pages, and 39 clear maps. The text, by an officer of the regiment and a well-known published military historian, is first rate. The large page size and well-chosen type make it easy on the eye. Every sale will, no doubt, benefit the regiment, who are (for most readers) the only source — so buy it. Highly recommended.

Elite series

64pp 12 colour plates, approx 45 mono illu; p/bk £8.45

E48 Nelson's Navy

by Philip Haythornthwaite, plates by William Younghusband.

An admirable addition to the series, and one that lives up to the series title far better than some other recent publications. Although the novice might have an idea that the Royal Navy of the 1790s-1815 presented a limited field for the uniform historian, this book proves him wrong. Generalisations are not for Mr Haythornthwaite; and in Mr Younghusband's rather static but extremely sharp and cleanly detailed colour plates we find a wide variety of detailed differences of officers' uniform. The mono illustrations are a mix of engravings, portraits, artefacts photos and drawings. The deeply researched, readable, and wide-ranging text is packed with hard information, about the men, their ships, their appearance, their equipment and weapons. Highly recommended.

Sharpe at Badajoz

Reconstructing Napoleonic Weapons

Three new Sharpe films are screened on television next month. RICHARD MOORE, military adviser to the series, describes the experience of recreating a siege and the Congreve Rocket System.

"It is a cold, wet and foggy day. The early rain has eased off, and the mud from the gabions that had collected in the trench bottom has partly drained to leave about two inches of slippery clinging sludge, impossible to pick up with your spade — but nobody likes digging anyway. Over us little people in the saps and parallels looms the enormous wall of Badajoz, grey in the murk and ominous. In three days we will be clambering out of these pits and forward to assault it. A siege gun bellows out behind me, adding the stink of gunpowder to the smell of bodies, damp and rot."

And so runs my notebook, kept daily for

the four months it took us to make the new Sharpe films in the Southern Crimea. We began on the heights of Belagorsk in August, most of the team from the previous films — *Rifles and Eagle* — reporting for duty. *Sharpe's Line* takes the newly-promoted Richard Sharpe into the no-man's land between the armies in an attempt to rescue a kidnapped Englishwoman, taken by a gang of cut-throats and deserters, and finally ending in the destruction of a French invasion force using the new weapon in the Peninsula, Congreve's Rockets. *Company* concentrates on the Siege at Badajoz and *Honour* is an adventure set against the Vittoria campaign of 1813.

The sets and locations as before, were found or designed by Andrew Mollo. Stunt work, both man and horse overseen by Denny Powell. Students of ballistics will be interested to note that in over eight hundred shots, we had only three misfires, which flies in the face of the projected statistics and is

mainly due to hard work on the part of the Armourer, Tom Moriarty, and his management of our stock of Baker rifles, Brown Besses, edged weapons and associated hardware.

Our 'wardrobe', consisting of last year's veterans and several new additions was assembled and designed by Robin Fraser Paye and ably distributed by Steve Kirkby. At times resembling a cross between a Bring and Buy Sale and the gentlemen's outfitters at Harrods, the 'feel' of 1812 was just right in the Costume Dept, from 'campaign' soldiers to elegant officers and ladies.

Opposite

Technical adviser Richard Moore holding seven-barrelled Nock gun recreated for *Sharpe's Honour*. The US badge was awarded to extras for recreating the storming of Badajoz. He also wears a 'stolen' French hair knapsack.



Sergeant Harper and the Chosen Men.





Congreve Rocket battery recreated in *Sharpe's Enemy*



The storming of Badajoz in *Sharpe's Company*

Our soldiers were played by Ukrainian Army conscripts from their base at Perevalna'ia, near Simferopol. I spent my first seven days with them there, helping them to become British/French soldiers of the Napoleonic period, adjusting them to Western technology and film work, and becoming friends too. As last year, the boys who slogged through dust and dirt, sunstroke and thirst, night and day, frost and snow, exposure and shortages, lack of sleep, explosions and injury, became the unsung heroes of the films.

Many interesting challenges were thrown up by the scripts for the new *Sharpe* films. My own particular forte as a serving Rifleman in the Ninety-Fifth Rifles of the Napoleonic Association meant I was able to advise and assist on the military presentations in the films and also give a personal opinion on what things should look like. The Baker rifles used by Sharpe, Harper and the Chosen Men, came from our unit's store, loaned by us in the interests of authenticity. They came back with a little more 'character' than we'd like, but every knock and dent tells a story.

In a similar vein, the script requires Sergeant Harper to discharge on several occasions a Nock seven-barrelled volley gun. Now this is something you don't see every day, but we are lucky in the Rifles to have a craftsman with the skill and knowledge to make for us a reproduction of this formidable weapon. Nock designed this gun in the 1780's as a novel way to rid the tops of enemy warships of belligerent sailors. What he perhaps didn't consider was the effect firing these weapons has on actors.

The original weapons, cumbersome pieces of a calibre of .52, equipped with back-action locks and no visible means of supporting them on your person, raised several design problems, not all of which were solved. If anyone reading this can

suggest a way in which a sixteen-pound, thirty-six inch long weapon can be comfortably carried by a Rifleman already labouring under a knapsack and Baker rifle, please send your ideas in. Our volley-gun has all of the original features, with a modified ignition but the original flintlock mechanism. The test-firing in the Crimea led to differing charges being loaded for different persons. One other notable aspect of the gun is that if you hold it in your hands for longer than three minutes when it is minus two you can't let go as your fingers have frozen to it. Altogether a gun that should be seen and examined and whose advantages are far outweighed by its practical difficulties.

Sharpe's Enemy shows scenes involving the transport, firing and effect of the Congreve Rocket System. Design of this started with a consultation with Woolwich Arsenal and an inspection of surviving items of the system. Of all the things anyone is likely to know about rockets, it is that they are unreliable in flight. Ours reflected this spirit of the original with the first test fire leading to one rocket zipping straight off into the camera and giving our cameraman a bloody nose! Another seemed bound for Mars and its final resting place will give a headache to a future archaeologist. But when due consideration had been given and several amendments made they did on the whole fly true — we had three which travelled over three hundred yards and dropped right on target.

Their effect on landing can be devastating, laying waste to over four acres of hillside on set, causing major continuity problems and a discouraging effect on the enthusiasm of several French soldiers. The camera, enclosed this time in an armoured hide, seemed almost to attract these projectiles in flight, but gave us some great shots from the point of view of the recipients. The noise is eerie, the thud as they land

considerable, and the detonation terrific.

The Rocket Troopers, copied from the original etchings, and incorporating several of their unofficial embellishments, trot along after their enthusiastic commander, with a reproduced Rocket Cart, and Launching troughs, all copied and reproduced from Congreve's own Manual of 1813.

The Siege of Badajoz called for heavy guns of the 18- and 24-pounder variety. Again after a visit to Woolwich, the final results were guns that looked like weapons that could cut Badajoz down to size and allow us to assault it. I fired the first shot of the siege myself, and also the last one, in what became a very satisfying, if hazardous experience.

Most of the siege destruction you'll see in the film is the result of a spring gun designed to shoot 20 bore rifle bullets into facsimiles of the Badajoz walls, made of a consistency to allow the persistent battering of the bullets to gradually reduce the wall to a state where it falls over and creates the breach. The gun and model of Badajoz were designed and built by Cliff Robinson.

The ground charges, shells, bullet hits and other effects in the films were all stage-managed by the Ukrainian special effects team. Adding to the fog of war by several mistakes made early on, they settled down to make a splendid effort for us in the several demolition scenes in the three films. One could never be certain just how powerful their charges were — something I found out myself at Vittoria by their attempt at the recreation of the death of Sir John Moore at Corunna using me as the stand-in. The charge that levelled the forlorn hope at Badajoz was so powerful it almost breached the breach! I shan't bore you with an inside story on the state of Ukrainian hospitals...

The three *Sharpe* films — *Company*, *Enemy*, and *Honour* — will be shown on ITV in May ●

What might have been

Disaster at D-Day

D-Day Book Feature

"Fortune," wrote Caesar, "has great influence on affairs generally and war especially." In the tradition of *The Third World War* and *Operation Sea Lion*, PETER TSOURAS, analyst at the US Army's Intelligence and Threat Centre in Washington DC, recreates what might have happened if the American landing had been overwhelmed by bad luck in an extract from *Disaster at D-Day* published by Greenhill Books this month.

For the men of the 16th and 116th Regiments, the first wave assault regiments of the Big Red One, the bluffs above Omaha Beach continued to grow as their landing craft approached. They had heard the waves of bombers dropping hundreds of tons of bombs directly on the beach defenders in their slit trenches and pillboxes. As at Gettysburg, a field familiar in memory to the Stonewallers, this preparatory bombardment had overshot the defences, falling harmlessly in the open country behind the bluffs, doing slaughter only on the dairy herds of Normandy. Low cloud cover had forced the bombers to drop their ordnance by instrument. In fear that the bombs would fall among the assault craft, a delay of several seconds had been added, a delay which caused them to miss the German defences entirely. They had also seen the naval gunfire rip the bluffs with their big rifles and the swarms of fighter bombers before and after swooping and diving to deliver more ordnance on the silent German defenders. That was more comforting. Men believe their sense of sight over that of hearing. They would be deceived again. The German defences had been sighted not to fire directly out to sea, but bring the beaches under fire. They were tucked into the bluffs and draws [ravines from beach to land above] at angles that made them difficult to see much less hit from the sea. Still, those bluffs, some 200 feet high, grew in height faster in the imagination than in reality. The reality was bad enough. Omaha was the most formidable beach along the invasion front.

Those bluffs formed a greater defence than anything German artifice could devise, but they did have their flaws. Four draws broke the front of the natural rampart along the front of the two assaulting regiments, perfect passageways inland. Here the



American Infantry from the first wave of landing craft at Omaha Beach. The high bluff ahead of them contains the young Saxons of the 352nd Infantry

Division instead of the expected old men of the 716th Coastal Defence Division.

Germans concentrated their defences. And it was in these four places that the 1st Infantry Division planned to sunder the German hold on the beach. The assault waves were aimed directly at those four draws.

For the assault on Omaha, the Americans had combined elements of two divisions under the control of the Big Red One: the 29th Division's Stonewallers of the 116th Infantry Regiment in the first wave and the

Marylanders of the 115th in the second along with the 1st Division's 16th and 18th Infantry Regiments. Only on 7 June would the 29th resume its independence when its commander came ashore with the rest of the division. Until then, the two regiments of the 29th would be known as the 'Provisional Brigade' or unofficially as the 'Bastard Brigade' by men never comfortable except under their own commander. The brigade would be



Battle for Fox Green Beach at Omaha, painted by Dwight Shepler.

controlled by the 29th's Assistant Division Commander, Brigadier General Norman Cota. Cota had been an excellent choice. As Chief of Staff of the 1st Division, he had served with that unit from its first landings in North Africa to the desperate foothold on Sicily. 'Dutch' Cota was a natural leader, and the division hated to give him up.

Within the first wave of the combined division were eighteen sub-waves of different elements of the two regiments and their attached units. The four of these attached units had been prepared to play a special role in helping the infantry break through the formidable beach defences. Two of them consisted of the 741st and 743rd Tank Battalions each with sixty-four Sherman tanks, attached to the 16th and 116th Regiments. Half the tanks in each battalion were the Duplex Drive or D-D types, meant to swim ashore, the 741st with the 16th Regiment and the 743rd with the Stonewallers. The other half of each battalion would be landed directly on the beaches from their LCTs (Landing Craft Tank). The third unit was the specially trained and equipped engineers of the 149th and 299th Engineer Beach Battalions. The D-

Day tanks would waddle ashore ahead of the infantry to suppress defences; for example, as on the extreme right where they would take out the defenders in front of the Vierville Draw. The infantry would follow. Two minutes after, the engineers would land to destroy the obstacles that might hinder later waves and to support the infantry's breakthrough of the draws. Behind the tanks on the right were the 2nd and 5th Ranger Battalions. The objective of the 2nd was the heavy casemated battery at Pointe-du-Hoc on the right flank of the landing beaches. Three companies of the 2nd Battalion would land on the beach beneath the battery and assault straight up the cliff. The 5th and two companies of the 2nd would land near the Stonewallers and strike inland to take the battery from the rear. Their fearsome objective housed four 150mm guns, termed by intelligence as 'the most dangerous battery in France', that could lethally range up and down the landing beaches.

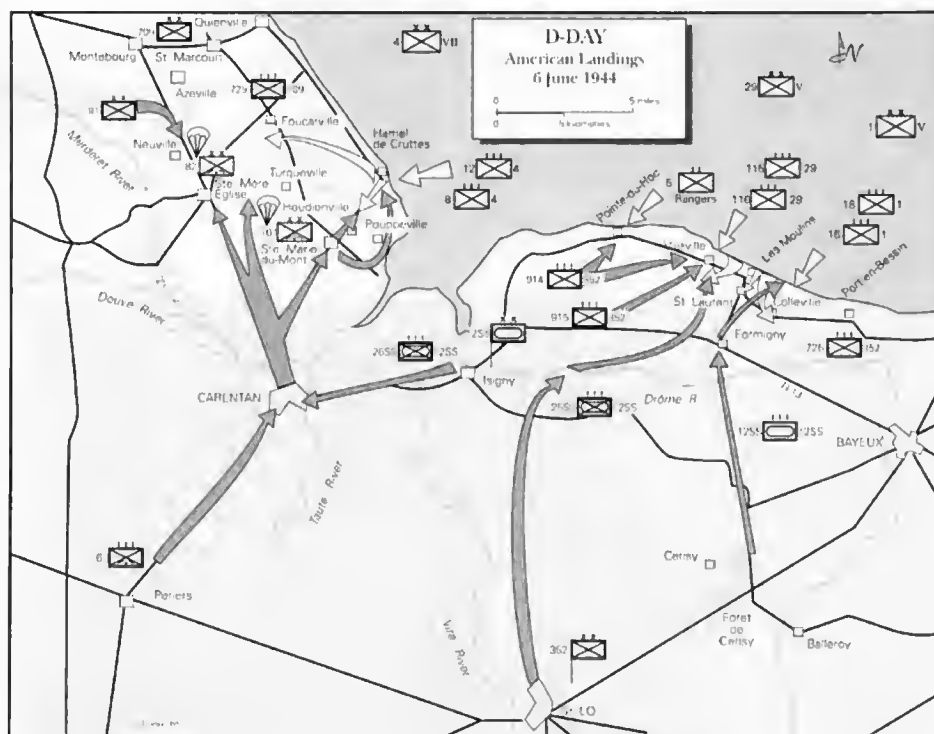
The planning timetable for the landings was so precise and optimistic that it reminded more than a few of the older men of the 1914-1918 war. For Lieutenant General Leonard Gerow, the V Corps commander, it

had an eerie resemblance to the St. Michel Offensive in which he had fought in 1918. The assault waves would hit the beaches, neatly divided into eight sectors, exactly at 0631 after the naval and air bombardments had ceased. By 0700 the wave would be ashore and the obstacles cleared by the engineers to allow for the next waves to come ashore every thirty minutes over the following two hours. By 0830 all enemy strongpoints would have been overcome when the artillery could begin landing. Within three hours the tanks and other vehicles of the 1st Division would be pouring off the beach into the interior. By nightfall, 40,000 men and 3,500 vehicles were to have been unloaded. The Russians had a common sense military proverb that seemed to belie the confidence of the plan, 'the plan was smooth on paper, but they forgot the ravines'.

The ravines so invisible to the planners were all too real to two general officers who would lead troops in the invasion. Cota had prepared a special study on how to assault a heavily defended beach. He had been sombrely impressed by the near defeat of the big Red One in its Sicilian landing and

concluded that the greatest chances of success demanded a night landing. 'The beach is going to be fouled up in any case. Darkness will not substantially alter the percentage of accuracy in beaching — not enough to offset the handicaps of a daylight assault.' The major handicap was the deadliness of the aimed fire the Germans would be able to bring to bear on the fully exposed landing forces. The other officer was Major General Charles 'Pete' Corlett who had commanded the 7th Infantry Division in its amphibious assault on Kwajalein atoll in February. The Bayonet Division had overrun the atoll and wiped out its 9,000 defenders in a week in the most expert amphibious operation seen so far. Transferred to the European Theatre to assume command of XIX Corps, he was immediately apprehensive of the planning for the American landings. Why weren't the Americans using the LVT (Landing Vehicle Tracked) which had served the 7th so well in the Pacific? The Alligator, as it was known by the troops, swam ashore and then carried the troops forward on its tracks through the beaten zone along the beaches. Eisenhower and Bradley reacted badly to Corlett's blunt question.

The Allied planners had decided that the optimum time for the landing was low tide, exactly the opposite conclusion reached by Rommel. They had no intention of making things easy for Rommel by impaling the landing craft on submerged obstacles at high tide. At a rising low tide, the assault waves could be discharged without danger at the edge of the obstacle belt. The landing craft would then be refloated by the rising tide to return to sea to pick up additional waves. The obstacle belt would be neatly checked by this decision. Unfortunately, it left the infantry to cover 200 exposed yards to the dubious protection of the overhang of the bluffs. The American planners had also decided to load the assault waves aboard their landing craft eleven miles from the beaches, against the advice of the British who would transfer their assault waves less than half that distance. Because the assault would take place so early, the transfer at such a distance had to be made at night. The assault would be made with barely half an hour of naval bombardment as soon as dawn illuminated the shore targets. The British had recommended at least twice the time for the big naval guns to work over the German defences, extra time they would not begrudge their landing forces. The planners also turned down the British offer to share Hobart's funnies, the specialized armoured vehicles meant to break through the obstacles and minefields. The only specialized vehicle the Americans accepted was the D-D tank, leaving the entire 79th Division to support the British divisions. Finally, the Americans discarded British advice to land between the strongpoints that defended the four draws. They would aim directly for the strongest



part of the German defences.

In perhaps the great miscalculation, one in which fortune tipped the scale, the planners assumed that the defenders of Omaha beach numbered only four battalions from the third-rate 716th Coastal Defence Division. In reality the 352nd had added four more high quality battalions to the defence of the shoreline. Behind them another regiment of the 352nd was in readiness to conduct an anti-landing exercise with the newly arrived battle-group of the 12th SS Panzer.

Things began to go awry for the Big Red One in the night before the invasion. As a result of the re-embarkation of the assault waves in the dark, too many landing craft wandered out of position, especially those carrying the engineers. As a rosy dawn broke over the French shore, the naval gunfire preparation struck the defences, festooning the bluff with smoke and setting the grass on fire in many places. In an act of breathtaking misjudgment the twenty-nine D-D tanks supporting the 16th Infantry were released 6,000 yards from shore where twenty-seven promptly sank in the rough seas, carrying their crews to their deaths. Only two were to trundle safely ashore to be joined by three more aboard a barge. The wheeled amphibious vehicles (DUKWs) with the artillery proved to be grossly overloaded and capsized with a loss of twenty guns. Before they had even approached within rifle shot of the beach, the assaulting waves of invaders had been stripped of most of the tanks, engineers, and artillery. None had been lost by the hand of fortune, but by the conscious decisions of their own side.

The tanks of the 743rd approached the beach still aboard their LCTs. One of the LCTs disintegrated in an orange fireball,

spilling its four tanks into the water. The German guns in front of the Vierville and Le Moulins Draws could not miss their targets, nor could the 150mm guns on Pointe-du-Hoc nearby. A second LCT was struck and veered off as it filled with water and then sank. The tank crews and Navy crewmen barely had time to jump over the side. The Naval officer commanding rammed his craft onto the beaches. Steady, steady, the lieutenant guided his remaining LCTs, until each rammed into the beach. The ramps went down and the Shermans bolted ashore driving through and over the obstacles straight for the heart of the German defences clustered around the two draws. A dozen were hit in the first seconds from direct fire of antitank guns. More died from the accurate German artillery sighted in on the beaches from their positions inland. A direct assault was made on Vierville Draw but collapsed as they lost the slugging match with guns buried deep in concrete. In a few minutes half the battalion had been destroyed. The rest found shelter under the bluff to the right and left of the draws where antitank fire could not reach them. The five surviving D-D tanks of the neighbouring 741st waded ashore with their ungainly canvas surrounds. Three were promptly destroyed. The other two companies of the battalion landed over the beach and failed in similar assaults on the two draws in their sector. The Americans had thrown 128 tanks against Omaha, more tanks than most German panzer divisions possessed. In minutes this force had been wrecked, and the infantry had only begun to come ashore.

The assault waves of the Stonewallers were quickly dragged off target by the strong currents that ran along the shore. Two companies were to have landed to assault the

Vierville Draw. G Company was pushed over a thousand yards to the east as was the entire 5th Rangers. A Company, which had already lost two of its four landing craft swamped, was right on target. So were the Germans. Their concentrated well-aimed fire massacred the two companies as the ramps fell into the water. The streams of bullets from the deadly MG-42s spewed into the packed open mouths of the landing craft. All thirty-two men and the A Company commander, Captain Taylor Fellers, in LCA 1015 were killed. The craft was washed out in the rising tide carrying its load of corpses back among the next waves.

Company F landed right in front of the Le Moulin Draw along with the errant Company G that should have been landing east at Vierville Draw. The smoke from burning grass on the bluff covered their landing, and they got ashore largely unscathed. A third company, E, drifted so far east that it landed in the zone of the 16th Infantry. The two companies in front of Le Moulin Draw went to earth behind a shingle embankment in front of the draw. Others tried to hide behind the beach obstacles. All along the beach, the surviving Stonewallers huddled in shock beneath the bluff or the shingle embankments. Those who tried to shelter behind tanks found that the metal hulks attracted German artillery. The engineers suffered as cruel an ordeal as

Company A. The current had carried most of their landing craft too far to the east. Those that attempted to land found their stores of demolitions a curse. Several crafts were blown apart in fiery explosions when German fire found the explosives. The engineers found it impossible to clear the eight fifty-foot-wide lanes in the plan. The few that landed where they were supposed to, found the infantry hiding for dear life behind the obstacles in many cases. The engineers also made exceptional targets as they struggled to destroy what obstacles they could. German snipers were detonating the mines on top of the obstacles. Mortars were skillfully directed onto the engineers before they could clear the obstacles they had rigged for demolition. By the time the rising tide stopped them, they had barely cleared two small gaps. The survivors sought refuge from the fire with the stricken infantry to wait to try again when the tide went out.

Events on the beaches occupied by the 16th Infantry were brutally similar to those inflicted on the Stonewallers. Companies E and F of the 2nd Battalion of the 16th attacked straight against the Colleville Draw and suffered the same fate as the 1st Battalion of the 116th at Vierville Draw. Within a half hour half of them were dead or wounded. Control of the 16th on the beach was crippled when the regimental executive

officer arriving with the first headquarters element was killed along with thirty-five of his staff. The men of the big Red One did not have even the tank support available to the Virginians of the 29th Division since half their supporting tank battalion was on the sea floor several miles offshore and much of the rest was burning on the beach. Their supporting engineers lost half their men and had cleared only three small lanes of obstacles. All along Omaha, the absence of the Hobart's funnies added to the catastrophe as men attempted to move through narrow gaps in the minefields single file, irresistible targets for German snipers and machine gunners that cut down whole files. There was a single bright spot, though. Four boat sections from the 2nd Battalion landed in a section of beach uncovered by German fire. The position that would have raked the boat sections had never been occupied. These Americans crossed the beach with only two casualties.

The three remaining companies of the 116th's 1st Battalion were to follow Company A beginning at 0700 in ten-minute intervals. C Company and the 5th Rangers were tugged east by the current and landed unscathed, but B and D Companies and two companies of the 2nd Rangers landed into the same sheet of well-aimed fire that had crushed A Company. They too left bodies to bob in the surf and piled around the obstacles as the survivors inched forward to join the paralyzed mass of men at the foot of the bluff on either side of the draw. All three company commanders had been killed. Up the coast the last company of 2nd Battalion and all of 3rd Battalion were supposed to land in front of Le Moulin Draw. Only one from each battalion, Companies H and I, made it; the others Companies K, L, and M were pulled 600 yards up the coast by the obstinate current. Company H had the bad luck to land in front of a German strongpoint and took heavy casualties. One man remembered. 'Two of the men from my section got down behind a tetrahedron (hedgehog) to escape bullets. An artillery shell hit the tetrahedron and drove the steel back into their bodies. I tried to pry the steel loose from the men, but couldn't do it. Then I figured they were dead anyway.'•



An SS machine gun crew in action against the American landing at Omaha Beach.

Buffalo soldiers

Uniforms of the Ninth and Tenth Cavalry, 1866-1903

Following the Civil War, black soldiers were incorporated into the US Army to serve in the West against the Indians from whom they earned their famous nickname. JOHN P. LANGELLIER and KURT HAMILTON COX describe their uniforms.

In 1866, the U.S. Congress authorised the establishment of two regiments of cavalry (the Ninth and Tenth) and four of infantry (the Thirty-Eighth through to the Forty-First) with the rank and file being comprised of blacks. Despite certain incentives to enlist, the ranks of the newly authorized black regiments did not fill immediately. At first, efforts to recruit from 'Black volunteer units which were still in service' after the Civil War was encouraged.¹ As such, recruiters drew upon the populations of Kentucky, Louisiana, and Texas with limited success.² One officer, Zenas Bliss, maintained that the results were far from satisfactory.³

Undaunted, the commander of the Tenth Cavalry, Benjamin H. Grierson, pressed for personnel. He dispatched Captain Louis H. Carpenter to Philadelphia, '...to recruit coloured men sufficiently educated to fill the positions of non-commissioned officers, clerks and mechanics in the regiment.' The colonel further instructed Carpenter to take, 'the greatest care in your selection of recruits...' so that the enlisted personnel file would be, 'superior men... who will do credit to the regiment.' Perseverance paid off. By July, 1867, Grierson counted 702 of the authorised 1,092 enlisted men of his command.⁴

In due course, the Tenth achieved sufficient strength to take up various posts in Kansas and present-day Oklahoma, while the Ninth Cavalry arrived at stations scattered throughout Texas. Soon, the troopers of the two mounted units began to acquire a prominent name for themselves as, 'first-rate regiments and major forces in promoting peace and advancing civilization along America's last continental frontier.'⁵ A quarter of a century of continuous assignments on the Great Plains, in Western mountains, and Southwestern deserts developed them into seasoned veterans and their foes, the Plains Indians, even showed their respect by nicknaming these hardy troopers the 'buffalo soldiers.'

While achieving an enviable record in the



Cavalry dress uniform with yellow breast cord and trim prescribed in 1903 with the new 1907 russet sabre belt. Devices on the cap and collar clearly indicated the wearer's regimental affiliation and that of his troop. In this instance being the Ninth

Cavalry, Troop A. This individual is a private and has served two previous enlistments as depicted by his services stripes. He holds an experimental sabre issued in limited instances by 1906.

field, the black troopers likewise cut a fine figure on the parade ground. For formal martial displays they turned out in the regulation 'shell jacket' which was a waist-length single-breasted close-fitting garment closing with twelve small brass buttons. The body was of dark blue wool set off by

medium yellow worsted tape along the edges, around the collar, and on the cuffs, which featured two small brass buttons to close the seams. Small pillows, dubbed 'bounty jumpers' by some of the men during this period, appeared at the rear just above the waist in order to help hold the sabre belt in



Troop of Ninth Cavalry at Fort Davis in Texas
c.1875.

position. Company musicians (buglers) along with the men who made up the bands for the two regiments also had a special ornamentation of yellow worsted tape affixed to the chest of their jackets.

All the other ranks wore a black leather waist belt with sabre slings on the left side and a shoulder sling that crossed from the right shoulder to the left hip, thereby providing another means of keeping it in place, especially when worn with the heavy cavalry sabre that had been adopted in the late 1850s.

Chevrons of yellow worsted tape were worn points down above the elbow by corporals through to first sergeants. Two stripes indicated a corporal, three a sergeant, and three with a diamond above a first sergeant. Yellow silk versions were reserved for the regimental sergeant major (three stripes with an arc of three above) and the regiments' quartermaster sergeants (three stripes with a tie of three bars across the top). Privates wore no chevrons.

Brass shoulder scales likewise indicated rank with three distinct patterns being issued for privates, trumpeters, and corporals; sergeants; and non-commissioned staff respectively. A black leather stock was prescribed too, although this 'dog collar' was unpopular with the troops, and eventually dispensed with in 1871. First sergeants and regimental non-commissioned staff officers had red worsted sashes which they wore under their sabre belts, tying these at the left hip.

Trouser stripes provided another means of setting apart non-commissioned officers. All sergeants had 1½ inch yellow worsted stripes on the outer seams of their trousers and corporals had ½ inch versions, while musicians and privates had none. In all instances, the trousers were sky blue kersey with reinforcing, an extra layer of material which matched the trousers and which was

placed on the seat and on the inside of the legs all the way to the cuffs to prolong the period of use.

Topping all this off was a black felt hat which looped up on the right side by means of a sheet brass arms of the United States device. The front of the crown bore large brass crossed sabres as well as regimental and company insignia along with a black ostrich feather on the left and yellow worsted cords around the base of the crown. White gloves, black booties or boots, and brass spurs with white metal rowels completed the parade kit.

This outfit remained regulation until 1872, when depleted stocks left over from the Civil War and a desire in certain quarters for new patterns resulted in the issue of General Order No. 76 on July 27, 1872 (modified in part by General Order No. 92, October 26, 1872, both from the adjutant general's office) and introduced a single-breasted 'basque' coat which was piped with yellow down the front of the chest and all the way around the skirt as well as the entire collar, both top and bottom. The collar measured between one and two inches in height, and was to display yellow facing cloth patches which ran four inches back from where the collar closed at the front. Small brass regimental numerals (a '9' or a '10' respectively) denoted the wearer's regimental affiliation and were affixed approximately in the centre of the yellow patches. Two straps of the colour of the coat body piped in yellow were set into the waist to help hold the sabre belt, which soon would be replaced by a model that did not have an over-the-shoulder strap for support.

Yellow facing also appeared at the rear, on shoulder loops, and on each cuff at the bottom with four eagle buttons measuring 7/8 of an inch at the rear and smaller versions at the edge of the flashes and the end of the loops where they buttoned down to the coat's body near the collar. Finally, the skirt was split at the sides to make facilitate horseback

service. Trumpeters and musicians were issued the same coat but 'herringbone' was sewn to the chest, these yellow worsted adornments being placed horizontally from each of the chest buttons.

A new type of chevron was adopted along with the coat which was made of facing material that matched the uniform and had black silk thread chain stitching to delineate the rank. There still were separately applied chevrons in use by some non-commissioned officers, however, not unlike the 1851-1872 pattern.

Another means of distinguishing noncoms was the retention of light yellow leg stripes, but now in facing material rather than made from worsted tape. The stripes still measured a ½ inch for corporals but was increased to 1 inch for sergeants, and plain trousers remained in style for privates and musicians. Trousers continued to be the same as issued in the Civil War, until a new pattern was adopted in 1876.

A new piece of headgear was made available relatively soon after the promulgation of general orders for the new uniform in 1872. This was a showy black helmet with steep rear visor, yellow horse-tail plume, yellow mohair cords and tassels, and brass fittings, the largest piece being a brass eagle. A black leather chinstrap, and a black band with stitching which was attached under the chinstrap, formed additional components of the helmet. In certain instances, the helmets were issued in advance of the new coats (such as was the case at Fort

Opposite

From 1866 until 1872, the regulation dress uniform consisted of a short jacket with yellow trim, shoulder scales, and chevrons for non-commissioned officers of the Ninth and Tenth Cavalry regiments. First sergeants and regimental NCOs also wore red sashes under their sabre belts.





Trooper of the Ninth Cavalry 1885 pattern uniform coat and 1881 dress helmet, both of which remained regulation until 1903.



1866 to 1872 regulation trumpeter or musician jacket, displayed with additional lace.

Davis, Texas in the early 1870s) thereby resulting in the mixture of the old 'shell jacket' with the 1872-pattern helmet for a short period.

The 1859-pattern cavalry sabre with sabre knot, the sabre belt and carbine sling when that arm was carried, a cartridge box, white berlin gloves, brass spurs with leather straps, and shoes for dismounted use or low-topped boots for mounted duty (usually worn under the trouser legs through to the mid-1870s) were the other basic components for the well dressed buffalo soldier of the era.

There were few changes until 1876 when new trouser designs were called for and issued, and in the same year a slight adjustment in the cut of the coat, including the relocation of the belt loops further back on the waist so as not to interfere with the wearing of the sabre belt, a problem which existed with the previous pattern.

There was some dissatisfaction with the 1872-pattern helmet too. Efforts to correct this situation resulted in a new design that was more squat in profile and which did not have exaggerated rear visors. Some of the old issue helmets were cut and reblocked to conform to the outline of the model prescribed in 1881, while contracts were let soon thereafter for the manufacture of the new helmet. The 1881 helmet had different fittings, most particularly the eagle, which among other things now exhibited crossed sabres and a regimental numeral, in this instance of german silver. The year 1881 also saw the addition of a pair of 1/2 inch yellow leg stripes on each side of the outer seams of trousers for company musicians and

regimental bandsmen although it would not be until 1883 that general orders actually mentioned their existence in an official form.⁷

By then, more changes soon were in the offing. For instance, in 1884, gold lace chevrons were adopted for non-commissioned officers as was a new pattern of trousers. Moreover, belt loops were to be removed from the waist, being deemed useless appendages by that time.⁸ Finally, collar numerals were done away with and a german silver lyre device was prescribed for members of the band, although this meant that it was no longer possible to tell what unit a bandsmen was assigned to because the regimental numeral had been removed from the collar and the helmet plate, unlike the headgear for all other enlisted personnel.⁹

This situation was never rectified, although the blank collars soon would bear the miniature target devices which had come into being for qualified marksmen. The marksmanship bar worn on the chest and other shooting medals likewise were beginning to appear on the uniform coat for those individuals who had earned such distinction for their abilities with the pistol or the carbine.

Except for these forms of recognition, only two other major changes took place through the remainder of the century. The first change had to do with the adoption of a collar which was covered all the way around in yellow facing cloth after 1885. Two years later, the colour of the cavalry facings was changed to a deeper hue of yellow because of the fugitive nature of the lighter shade which tended to fade after exposure to the sun.

Thus facings, chevrons, helmet plumes, cords, and the like all were either dyed to match the darker shade or new materials obtained for the manufacture of these items. It was this reason, among others, which prompted the adoption of a slightly darker shade of cloth for the trousers, too, in 1885, although older patterns continued in use for sometime thereafter.¹⁰

Other significant actions as far as the dress uniform was concerned included the adoption of new patterns of chevrons from time to time.¹¹ So, too, were gauntlets prescribed in 1884 while there likewise were special accessories for bands (most notably yellow mohair shoulder with cords and bearskins or busbies for some bands and their band masters or principal musicians) and the introduction of a new carbine (the Krag) which brought about the replacement of the leather sabre belt with a blue woven Mills belt in some instance after 1896.

All this remained until the end of the Victorian era. Then, General Order No. 132 of December 31, 1902, introduced radical changes for all categories of the uniform including among other items for dress wear a new single-breasted six button coat with piping at the cuffs and collar only and a cap with black leather visor that had a removable band with yellow trim. This new outfit replaced the plumed helmet, gold lace chevrons, and other elements which had been the mark of the buffalo soldier on normal occasions for nearly three decades.

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Commander of the Turtleships

Korean warfare, 1592

Overwhelmed by a Japanese invasion, Korean commander Yi Sun-shin fought back with a fleet of extraordinary ships that cut the Japanese supply line. L.F. WILDMAN tells the remarkable story of the first recorded use of ironclad gunships.

By 1590, General Hideyoshi had fought his way across Japan and subdued all rivals. In all but title, he was Shogun. To be officially accepted as such in Japan and the rest of Asia, Hideyoshi had to receive the recognition of the Emperor of China, but the Ming dynasty would not accept his claim and in retaliation the snubbed general swore to invade China and bring the Ming to their knees. To do this he would have to advance through Korea, but the Koreans were allied to the Chinese and refused to allow the Japanese to pass through their land. In April 1592, Hideyoshi gathered an army of 150,000 soldiers and sent them in a great armada across the Straits of Tsushima to southern Korea where they easily captured the port of Pusan. The war between Japan and Korea had begun and the Koreans were desperately unprepared for it.

Japanese warfare had been revolutionised by the arrival of the musket in the middle of the century bought from Portuguese traders. Hideyoshi's army was heavily equipped with firearms and when his advance party of 5000 landed at Pusan they were confronted by Korean garrisons armed only with bows and arrows. The Koreans bravely resisted the invading army but were swiftly cut down by musketeers followed by armoured samurai horsemen who were soon beheading captured Koreans by the thousand. One Korean commander captured the spirit of the resistance with a note thrown to the enemy: 'It is easy for me to die but it is difficult for me to let you pass.' Unfortunately, it was all too easy for the Japanese to slaughter the unprepared Koreans.

Two more Japanese armies landed at Pusan by the end of the month and all three forces fanned out to advance north. All the Korean navy based at Pusan could do was to sink itself to prevent capture and flee northwards with everyone else. In Seoul, Korean generals hastily tried to organise a line of defence but at each point they met the Japanese they were overwhelmed by their muskets and their swords. King Sonjo and his

court fled their capital and within two weeks of their arrival, Seoul fell to the Japanese armies. While Sonjo sent messages to the Chinese begging for help, the Japanese generals fell over themselves in competition to conquer the rest of the country, easily cutting their way through the local opposition to P'yongyang and Onsong in the very north. Hideyoshi had completed step one of his plan and now contemplated his invasion of China.

The Japanese occupation was a disaster for Korea. Japanese armies looted the land relentlessly, destroying villages, burning towns, and the population were either massacred if they resisted or shipped back to Japan if they possessed any skills. The productivity of the country was reduced by over half and a Korean poet described 'bones piled up in fields'. While King Sonjo and most Korean leaders waited for the Chinese to rescue them, it was left to the ordinary Koreans to organise their own guerilla retaliation. 'Korean rebels often shoot at us with their small bows,' recorded Ankoku Ekei in a letter to Japan. 'They set fire to Japanese ships and kill the crew too. For this reason, we have to scout the streets to punish the rebels.' But such resistance, although irritating, was not enough to make the Japanese have second thoughts about their conquest. It was all going too well.

Clearly the Japanese could not be defeated on land, but Korean commander Yi Sun-shin began to consider a strategy in which the Japanese land force could be weakened and dragged away from its relentless march north. Throughout the first month of humiliating defeats, Yi had kept his fleet of ships on alert in the south-western province of Cholla. Fortunately for him, the Japanese had been so keen to take the capital at Seoul that they bypassed him and his forces were untouched. He could now contemplate a counter-attack. At a conference in early May, Yi Sun-shin outlined his plan.

'This humble subject and his fellow officers have been greatly enraged at the news that the enemy has been marching on the inland roads to invade the capital,' records a passage in his *War Diary*. 'Therefore, we have mapped out a strategy to cut off the path of retreat for the enemy by destroying enemy ships. If successful, this strategy may drive the enemy to turn back to the south out of fear that its rear might be endangered.'

Yi and his Korean warriors would cut

Hideyoshi's supply route from Japan to Korea and thus bring the Japanese war-machine to a halt. On May 4th, his fleet of 24 warships and 15 smaller ships sailed for Kyongsang province in south-east Korea and the port of Pusan. But a plan of attack was not enough. Yi understood the Japanese strength in firearms and cannon and knew his own forces were intimidated by the string of Japanese successes. The Koreans had to have an advantage in battle, something as revolutionary as the Japanese mass use of muskets. A year before the Japanese invasion, Yi had already been preparing his forces for a possible threat from Japan. The royal court had ignored his warnings about a lack of preparation and a need for increased naval defences, but he had gone ahead and insisted on the construction of several turtleships — the first recorded use of ironclad, cannon armed warships in the history of warfare, 300 years before their appearance in the West. This was the extraordinary innovation Yi would bring to bear on the Japanese conquerors.

Although the idea of armoured battleships had been around in Korea as early as the 15th century, Yi revised and improved their design, adding also the destructive power of several cannons. In this he was assisted by the shipbuilder Na Tae-yong. Together, they built a whole fleet of these armoured turtleships. Yi describes their appearance in his *War Diary*:

'A dragon head is added to the bow of the ship. We can fire cannon through the mouth of the dragon while we have the deck covered with iron spikes. Although our crew can look at the enemy from the ship, the enemy cannot see into it from outside. We can penetrate the enemy line of hundreds of ships and destroy them with our superior firepower.'

Yi's nephew, Yi Bun, gives us an even more detailed description of the remarkable ships:

'We have built a new battleship as large as a *panokson* (largest ship in the Korean

Overleaf

Sebastian Quigley's reconstruction of the battle off Hansan-do Island in South Korea, July 8th, 1592, shows a Korean ironclad turtleship (left) engaging a Japanese warship. Korean commander Yi Sun-shin is shown on board a ship in the foreground. The reconstruction of the turtleship is based on 16th century descriptions and a later 18th century reconstruction.





navy at the time). There is a narrow passage on the deck in the shape of a cross, while we have the rest covered with iron spikes to leave no space for the enemy to board us. The bow is shaped in the head of a dragon and the stern the tail of a turtle. A gunport is installed at each end of the dragon head and six more on each side of the ship... In battle, we camouflage the deck with straw mattresses before we send the ship to head the assaulting fleet. If the enemy attempted to board the ship, they would be pierced to death by the spikes. If the enemy ships tried to encircle the ship, they would be destroyed by the superior firepower of the guns.'

No contemporary measurements survive of the turtleships, but a later revived model was built in the 18th century and this measured 65 feet long with a bow width of 12 feet, midships 14½ feet, and the stern 11 feet.

With the ironclad turtleships heading his fleet, Yi advanced from Yosu into Kyongsangdo. At first, he found himself engaging the ships of soldiers who had dropped anchor simply to loot and ravage villages and towns on the mainland. These he effortlessly destroyed, leaving the troops marooned on land and victim to Korean guerrillas. Word began to spread of these first victories against the Japanese, the only ones the Koreans had had so far, but Yi was hungry for something more significant. This became inevitable in July. Hideyoshi was discovering the weakness of his supply route along the southern coast of Korea and sent the main force of the Japanese navy to secure it. In preparation for the deciding clash, Yi gathered a fleet of 55 warships. Early in the morning of July 8th, Yi's fleet spotted two Japanese patrol ships. Yi ordered a pursuit of these and they brought him face to face with a Japanese armada of 36 large ships, 14 medium-sized ships, and 13 smaller boats, all in battle formation under the command of Wakisaka Yasuharu.

The Japanese fleet were sheltered in a narrow strait and Yi decided not to advance on them there but lure them out to the open sea off Hansan-do. 'The strait was so narrow,' recalls Yi in his *War Diary*, 'that it was easy for the enemy to escape onto the shore... We decided to tempt them into the open sea which would work to our advantage to annihilate them all.' He thus ordered the majority of his fleet to hang back while just two ships sailed into the strait to challenge the Japanese. When the Japanese took the bait, the two little Korean ships turned round and feigned a retreat into the arms of the main fleet.

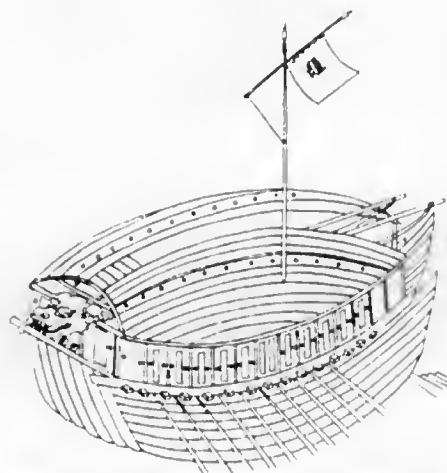
Yi now enveloped the leading Japanese ships in a pincer formation, or 'crane formation' as the Koreans dubbed it, and sent his turtleships towards the Japanese flagships in a dash for the 'head' of the enemy, akin to Alexander the Great charging at the Persian emperor in the battle of Issus. Yi knew if he

crushed the command of the Japanese, everything else would follow. Impervious to the musket volleys of the Japanese warriors, the turtleships rowed in among the leading Japanese ships and blasted away, setting fire to the canvas and wooden structures so the Japanese fleet was torn apart by fireballs and explosions. With the Japanese flagships ablaze Yi ordered a general advance of his entire fleet. In his *War Diary*, Yi described the scene:

'Greatly encouraged by the initial victory, all our generals, officers, and men stormed the enemy. They fired all the guns and arrows in their possession to burn the ships and kill the men of the hostile fleet. Annihilation was complete within a matter of hours.'

The Japanese view gave a similar account of the overwhelming victory:

'Since the enemy (Korean) ships were larger than ours, we decided to retreat into the narrow strait. However, the enemy ships in pursuit of us shot fireballs at our ships, which were burned and destroyed all of a sudden. Many notable lieutenants of the Wakisaka family, including Wakisaka Sabee and Watanabe Shichiuemon, committed suicide with their swords.'



Korean woodcut of turtleship, showing interior, and without cladding of iron spikes.

In total, 47 Japanese ships were destroyed and 12 captured. Only 400 Japanese managed to struggle ashore. News of this remarkable victory at Hansan-do quickly spread and the Japanese at Pusan sent 42 more ships to avenge their defeat, but rumours of the turtleships tempered their ardour and they paused at Angolpo, midway between Pusan and Hansan-do. Yi was informed of their presence by his patrol boats and on July 10th sailed close to the port. There, he saw that among the 42 Japanese craft were two giant flagships of three-storeys and two-storeys respectively. Again, he wanted to lure them out to the open sea, but this time the

Japanese commanders had been warned by Wakisaka of this trap and refused to move. They remained in the shallow waters of the port and Yi was forced to change his tactics. Instead, he divided his fleet into a number of small assault parties headed by the turtleships which were ordered to attack the Japanese fleet in turn.

Yi's main targets were, of course, the Japanese flagships and his ironclad turtleships rowed up close to these giant boats and poured in their cannon fire. The Japanese crew and warriors were laid low by the volleys but rather than leaving their ships to burn, the surviving Japanese rowed bravely ashore not to escape but to bring back reinforcements. All day, the Koreans and Japanese fought both hand to hand on deck and pounded each other with firepower. Eventually, the ironclad Korean ships proved too resistant to the Japanese and despite their suicidal courage, the Japanese had to flee ashore and leave their boats to burn. Yi gave them room to escape and retreated to the open sea where he spent the night. The next day, Yi sailed back to Hansan-do where he discovered Japanese deserters weak with hunger scattered on the islands. He left them to their fate and returned to his base port of Yosu. The Japanese had suffered a defeat that would change the whole nature of their war in Korea.

As a result of Yi's victories at Hansan-do and Angolpo, General Hideyoshi was forced to concentrate his resources on protecting his supply line from Japan to Pusan. Japanese troops north of Seoul were deprived of valuable ammunition and arms and the whole campaign in north Korea ground to a halt. Rather than using Korea as a base to attack China, Hideyoshi would have to fight a war of attrition and consolidation just to maintain his hold over Korea — a war that after apparent victory in a few weeks would actually last for seven more years. Eventually, after Chinese intervention and inconclusive peace negotiations, a second Japanese invasion in 1597 and further naval victories by Yi Sun-shin, the war was only brought to an end in 1598 when Hideyoshi died and the Japanese evacuated Korea. Thus it was that Hideyoshi's grand plans to be accepted as Shogun of Japan and overlord of China and possibly all Asia were brought crashing down by the Korean commander Yi and his remarkable turtleships.

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Durham's most complete machine

Part of Wellington's 'most complete machine' in the Peninsular War, the 68th Light Infantry are recreated by the Durham Light Infantry Display Team, one of the leading Napoleonic re-enactment groups in Britain. KEITH RAYNOR describes their drill and uniform.

In 1968 Durham's county regiment, the Durham Light Infantry was absorbed into the then new Light Infantry Regiment. In 1975 a few members of the D.L.I. Regimental Association decided to form a 68th society to keep alive the history and traditions of the old D.L.I. From this society was born the 68th D.L.I. Display Team, which has since taken on the role of demonstrating to the general public the drill as used by the 68th (Durham) Regiment of Light Infantry in the latter part of the Napoleonic Wars.

Though originally intended as a drill display team rather than a re-enactment unit, the society has evolved into one of the leading re-enactment and living history groups for its period in the U.K. Its success can be judged by the fact that between 1984 and 1993, over one hundred and fifty public appearances have been made by members of the team, ranging from small charity raising events to large scale battle re-enactments such as at Waterloo, Belgium in 1990. On this

occasion the team fielded the largest single British contingent, being brigaded with the excellent Canadian units.

Between November and April the team meets regularly to practice both light and line drill movements and the manual of arms in preparation for the coming season's events. All these movements are taken from the manuals of the possession of the team. These include for the line: *Rules and Regulations for the formations, field exercise and movements* 1798 (Dundas); *Manual and Platoon exercise* 1804 and 1812 editions; *Rules and Regulations for the Manual and Platoon exercises, formations, field exercises and movements* 1807 and 1811 editions. For the Light Infantry: *Light Infantry Exercise* 1797; *Regulations for the exercise of Riflemen and Light Infantry* 1803 and 1808 editions; *A course of Drill and Instruction in the Duties of Light Infantry* 1808 edition; *Instructions for Light Infantry and Riflemen* by Neil Campbell 1813; and finally *Drill and Manoeuvres as practised by the 52nd Light Infantry* by John Cross.

Research is continually carried out by a Research Officer and assistant who are appointed by the society's committee. One result of the research carried out by the Display Team was to discover that the mode of firing as practised by the 52nd Light Infantry was different from that ordered by the standard Dundas drill. As the 68th were to be trained along the same lines as the

52nd, it is assumed that this mode of firing was also adopted by them. The new exercise allowed the soldier to select his target before, or during loading; and the subsequent movements of the firelock were designed so as not to restrict his view of the target up to the moment of firing. Starting from the assumption that the firelock is already loaded, the 'Make ready' in the 1812 Manual and Platoon Exercise reads: 'Bring the firelock to the Recover, by throwing it briskly from the shoulder, the guard to the front, and instantly cock as soon as the left hand seizes the piece above the lock...'

For the 52nd, 'On the word 'Make Ready', both ranks fix their eyes on an object in front, bring down their firelocks to a horizontal position on the right side'. So at this point the 'Line' is standing with both hands holding the firelock in front of the face. Whilst the 'Light' are holding their firelocks at the right hip, staring at the intended 'victim'.

When the order 'Present' is given, the 1812 Manual states, 'slip the left hand along the sling as far as the swell of the firelock, bring the piece down to the 'Present'. For the 52nd, at the command 'Present', both ranks bring up their firelocks..., each man slowly and independently levelling at the particular object his eye has fixed upon, and as soon as he has covered it, fires of his own accord'. In the 1812 Manual, the men wait until ordered to fire.

When the word of command 'Load' is



Above and right, Display Team present position.



given, the 1812 Manual requires the firelock to be brought high-up on the right breast, muzzle pointing up, 'to the peak of the cap', which places the butt, 'into the hollow of the right side'. However, the 52nd firelock, 'will be brought down from the 'present', to the position described for making ready' i.e. horizontal at the right hip.

If the firing was to continue, then after the loading procedure; for the line the firelock was returned to the shoulder, thence to the Recover and so on. For the 52nd, the firelock stayed at the make-ready or horizontal position, from which it was a simple matter of raising the firelock back to the present; while the soldier looked around and selected another target.

This new mode of firing had been suggested as early as 1803, Sir John Moore writing that, 'The 52nd find also upon trial, that the aim is more certain and takes more readily by coming, upon the word, 'Make Ready', to the priming position, cocking and bringing the piece up to the present — instead of recovering, cocking and bring down the piece to the present'. Another Officer wrote that, 'the reasons in favour of this mode of making ready are strong and obvious to any person who understands the principals of shooting. The Recover is an unnatural and awkward position, and a more correct and steady aim can be taken by elevating the piece from the priming position... than by bringing the piece to the Recover, which to a certain degree makes the firelock intercept the object in vision, before presenting, and not to search about for an object with the piece raised to the eye. To good sportsmen this will need no argument or explanation'. This type of fire-drill is practised within the 68th Display Team, along with other differences between Line Infantry and Light Infantry drill.

The uniform

The cap

The cap worn by the 68th in 1814 was the second pattern stovepipe shako. The Stovepipe shako had first been authorized in February 1800; the first pattern being made of layers of linen canvas which was then coated with a black shellac lacquer, giving it the appearance of leather. It was replaced by the second pattern in October 1806, 'the lackered cap... has been found from experience to be attended with much inconvenience and prejudice to the Troops... those Regiments of Infantry which are entitled to caps for the year commencing 25th Dec. 1806 shall have them made of felt in strict conformity to a pattern cap... the leather parts of which and brass parts are to be supplied once in two

years and the felt crown and tuft annually'.

This second pattern was made of blocked felt, measuring 7 inches across the top and approximately 7 inches high. At the front was a broad leather peak 2 1/4 inches at the widest point then tapering to the side. Inside was a linen liner and a two piece sweat band made of patent leather. The two pieces give the appearance of a continuous hatband though this is not the case. There is no evidence to suggest that the stovepipe shako had an external flap. However, the rear inside sweatband might be pulled outside of the cap to act as a neck flap. No chinstrap was issued with the cap; though there is evidence that orders were issued for the addition of chinstraps as occasion demanded. For the Walcheren Expedition 1809, 'Lieutenant-Generals of Divisions will immediately give orders that proper means are taken for securing the soldiers caps by fixing tapes so that they may be tied under the chin to prevent them falling off'. As the 68th formed part of the Walcheren expedition, it might be possible that those survivors in the regiment from that campaign continued to use tapes for tying on their caps.

The Shako furniture consisted of a plate, which for light infantry was a bugle horn, a green tuft and a black leather cockade fixed in the centre of which was a regimental button. John Green mentions, 'Green tufts (in the caps) in place of white ones and bugles in front of our caps instead of plates', upon the 68th conversion to light infantry in 1808. In December 1814 a circular letter addressed to the Colonel of the 68th stated, 'That Regiments of Light Infantry shall in future wear on their caps, a bugle horn with the number of the regiment below it instead of the brass plate now in use'. This would have been introduced in 1815.

The Stovepipe was officially replaced in March 1812 by the Belgic Shako, which came into general use thereafter. It would appear though that the light infantry regiments continued to use the stovepipe shako, as did some line regiments where the Belgic Shako failed to reach them. In the 68th the continued use of stovepipes could be put down to problems of supply. According to the inspection return of February 1813, the clothing issue for 25th December 1812 had reached the unit. But as the Belgic Shako had only been approved in March 1812, it is speculative that sufficient supplies could have been accumulated to supply units in the frontline. Those in Home Service or destined for foreign duty being equipped first.

Wellington himself might have had something to with the retention of the stovepipe shako. In November 1811 he wrote, 'I hear that measures are in contemplation to alter the clothing, caps, etc. of the army... At a distance or in action, colours are nothing; the profile, and shape of a mans cap, and his general appearance are what guide us... I only

beg that we may be as different as possible from the French in everything. The narrow caps of our infantry, as opposed to their broad top caps, are a great advantage to those who are to look at long lines of posts opposed to each other'. So, could Horse Guards have compromised and allowed Wellington to keep some of his units like the 68th in the stovepipe shako?

The stock

This item was introduced in July 1791 to replace rollers or neck cloths. The stock was made of three pieces of leather and highly polished by use of black-ball. The main piece, made of thick leather went around the front and sides of the neck. At the rear, pieces of thinner leather were stitched to it forming tabs. The whole was kept in place by a stock-clasp attached to the thinner leather tabs.

It would appear that a 4inch width was the standard size delivered to units, with the intention that they be cut down to each individual soldier's size upon issue. However, as regiments were reminded, 'the soldiers stock, which in some regiments is made of such a breadth, is not only uncomfortable to the soldiers, but injurious to his health, by pressing on the glands of the neck, and by that means exciting scrophilous swellings in constitutions where there is a tendency to that disorder. The stock, like every other part of the soldier's dress should be adapted to the size and shape of the man'. It seems likely that many regiments were not heeding these instructions.

The jacket

The jacket worn by the 68th in 1814 had evolved from that first introduced in 1796 to replace the long tailed 18th century coat, though the use of a jacket had been associated with light infantry and Highland units before this date. The jackets were originally fairly loose fitting, but developed into a tight fitting garment. So tight did they become that Horse Guards called attention to '...the make of the coat, which is in some regiments so cut away as literally to afford no covering or protection to those parts of the body, where warmth is most essential viz the lower parts of the body and the hip joints. They are moreover made so tight that they are with difficulty buttoned over the waistcoat and they diminish the power of action in a mode highly prejudicial to the health and vigour of the soldier'.

The jacket was made of red wool cloth lined with white serge, the sleeves though being unlined as ordered in 1803. The front skirts were also faced with serge with an edging of regimental lace. The false pocket flap sloped diagonally to the rear whilst the actual pockets were entered by openings in the seams of the pleats at the jacket's rear. The pocket being between the lining and the jacket's body.

Opposite

Kit layout of a Display Team member as recommended by the lists of the period.

The cuffs, collar and shoulder straps were made in the facing colour. The collar was to be, '3 inches in breadth' and 'to be laced around', though in 1808 the collar height was increased, 'in consequence of His Majesties order for the soldiers to wear their hair short (ie. the abolition of the queue). It is his Highness's pleasure that the collars of the Regimental Jackets should be higher in the neck so as entirely to cover the clasp of the stock'. The cuffs were 3½ inches in breadth with four buttons and four loopings of lace on each. The shoulder straps were made of two pieces of cloth, the underneath of red cloth and the top of regimental facing cloth. The strap was bastion shaped sewn off-set towards the rear and edged with regimental lace.

The description of the 68th's facings vary. The general view of 1802 has the facings being deep green while De Bossett in 1803 mentions Blueish-Green. The pattern of Sir Thomas Trigger's Jacket (the Colonel of the 68th) in Buckmaster's Book describes the facings as Dark Green. Hawkes' pattern book, page 91, has a 68th Officer's jacket with dark bottle-green facings, the same description given by Hamilton-Smith's 1812 Chart.

The most distinct feature of the jacket was the lace. The lace was about ½ inch in breadth to be made of white worsted with distinguishing stripes or worms. For the 68th the lace pattern consisted of red and green worms sewn on in pairs of squared or doubled head loopings. There were to be, 'ten loops of lace on each front of the coat... the loops to be four inches in length at the top and reduce gradually to 3 inches at the bottom'; though in reality the loops were slightly longer. This produced a tapering effect when viewed from the front. This tapering effect had originated with the transfer of the lace loops from the lapels of the old 18th century redcoat to the body of the 'new' jacket. Though the whole effect became gradually more exaggerated. The lace

loops were also slightly higher at the outer edge slanting downwards to the centre. There was also four loopings of lace on each pocket flap and 'a diamond of lace between the hip buttons over the joining of the back skirts' (though in reality the diamond was a triangle of lace). The 68th being Light Infantry, wore shoulder wings made of wool cloth laced around with six darts of lace on each. The wings had a fringe made of worsted wool combed out fine then 'steamed', so it rolled back onto itself.

For Light Infantry the buttons were to be small on the whole of the jacket. These being roughly ⅝ inch diameter. There were thirty buttons on the jacket, ten at the front, two for the shoulder strap, four on each cuff, four on each pocket flap and two on the back seams. At the front, 'the buttons to be set on equal distances, two and two, three and three according to the order of the regiment'. The 68th's buttons being in pairs.

Finally it should be noted that the 68th were nearly clothed in green, a report in 1811 stating, 'that the present colour of the clothing for the Light Infantry corps is objectionable, being too conspicuous for the service required from them — and that the same objection applies to the belts, which should be black, like those of the Rifle corp. The colour of the clothing is proposed to be green'. However, the proposal was never implemented and the 68th along with the other light infantry regiments retained the used of the red jacket.

Trousers and breeches

The years previous to 1814 had seen the eclipse of the old 18th century breeches and the gradual adoption of trousers for wear by the British Army. Though breeches were still kept for dress or parade wear, it had been realised by Horse Guards that trousers were more suitable for active service. A realization in part forced on Horse Guards by the widespread unauthorized use of trousers by Regiments. Trousers usually made of linen, had been worn by regiments in the West Indies for some years but the substitution of breeches for trousers in Europe and North America was not experimented with till the Walcheren expedition in 1809. In that same year a circular letter had criticised the adoption of white linen pantaloons in great numbers of infantry Regiments and Militia.

However, it was not until 1811 that a report stated, 'that gray cloth trousers, with a half gaiter of the same, should be substituted for the white breeches and the gaiter now in use... that these articles form a more convenient dress than the breeches and long gaiters, from leaving the joint of the knee and the calf of the leg unconfined, and are therefore more suitable for marching — the long gaiter from buttoning tight over the calf of the leg being found by experience to produce sores — the grey half gaiter is...

preferable to the black in other respects — the material is more durable — the dye of the latter being injurious to the cloth — and the trousers, when worn out as such, may serve to repair gaiters. The advantage of this dress over the breeches and gaiters seem to be sufficiently proved, from the almost universal use thereof in regts, upon service — it is more easily taken off and put on — it also obviates the use of pipe-clay — and in regard to appearance, it is cleanly, useful and uniform...'

This report was followed by a circular letter of the 29th August, 1811, stating 'for the information of the Colonels and C.O.'s of Regiments of Infantry... serving in Spain and Portugal, that His Royal Highness the Prince Regent, has been pleased... to sanction the use of long grey pantaloons and short grey gaiters, in the corps serving in those countries, instead of white breeches and long gaiters'. Official approval of the use of grey pantaloons was confirmed and extended in the 1812 Clothing Regulations, when as part of his clothing and necessities, a soldier was required to have: one pair of grey cloth pantaloons and short gaiters if on foreign service, or if on home service one pair of breeches and long gaiters. By September 1812 pantaloons were being replaced by trousers, a memorandum dated that month reading, 'Pattern trousers of grey cloth which are substituted instead of pantaloons for Infantry corps on actual service are this day lodged at the clothing Board'.

There was a tendency to wear the pantaloons/trousers on Home Service, but this was frowned upon. General Orders, 23rd October 1811, declaring that, 'the C-in-C will not allow substitution of pantaloons, or any other article of dress, for the regulation white breeches and gaiters, but will allow a loose overall to wear over cloth breeches as preservatives on a march or on night duties'. Again, this order was confirmed in the 1812 Regulations.

The 68th would have thus worn the grey pantaloons and trousers during their service in the peninsula. But on their return from France to Ireland (or Home Service) in 1814 would have had to resume the wearing of breeches and long gaiters. However there is speculation whether the 68th or any other returning veteran battalion ever wore the breeches and long gaiters again, but continued to wear the grey trousers contrary to orders. A situation the army was forced to accept by September 1819, when with a C.O.'s discretion the 'necessary' pair of breeches could be replaced by grey trousers on Home Service. Breeches were finally discontinued in June 1823 when they were replaced by blue-grey cloth trousers.



Close-up of the New Land Pattern Light Infantry Musket showing G.R. Crown, the reinforced ring neck cock, rudimentary backsight and pistol grip trigger guard.

Fight at the Pool of Herons

Pictish Victory, AD 685

JOHN MARSDEN recreates a battle of the Dark Ages with the help of a remarkable stone monument at Aberlemno in Scotland.

There is no heritage centre or audio-visual experience to interpret the ancient battlefield some three miles south-east of Forfar in Angus. Only a modest, and quite recently-erected, cairn commemorates the momentous defeat of the Northumbrian war-machine by the Picts thirteen hundred years ago.

It has been presented elsewhere as the first great victory in the Scottish nation's centuries-long struggle for independence and it was certainly recognised by the earliest sources as the last stand of the Northumbrian ascendancy which had endured for the greater part of a hundred years. It is also one of the best best-documented battles of the Dark Ages. English, Irish and Britonic sources agree on the combatants and the outcome, clearly indicate the field, and confirm the date — and even the time of day — of the conflict. The one thing they can't agree on is the name by which the battle was called.

Symeon's *History of the Church of Durham* — written in the twelfth century but preserving Lindisfarne historical tradition of much greater antiquity — calls it *Nechtanemere*, 'the swamp at the lake of Nechtan', which must represent the English name for the battle. The Irish *Annals of Ulster* and *Annals of Tigernach*, drawing on much earlier Iona sources, record *Cath Duin Nechtain*, 'the battle at the hillfort of Nechtan'. No comprehensible Pictish record of the battle has survived, but the Pictish battle-name might have been accidentally preserved by the Welsh monk Nennius who compiled fragments of earlier Britonic historical writings in his *Historia Brittonum* around 830. The still-untranslated Pictish language is believed to have been most closely related to Britonic-Welsh and when Nennius called the battle *Gueith Linn Garam* he was very probably transcribing the name by which the Picts themselves recalled their victory — 'the fight at the pool of the herons'.

All three names identify the same battle — though for reasons of pure tribal loyalty I shall use the northern English *Nechtanemere* from this point on.

Egfrith of Northumbria

When Egfrith succeeded to the kingdom on the death of his father Oswy in 671, he inherited a Northumbria at the peak of its ascendancy. Northumbria itself extended from the Humber to the Forth, but following his victory over Penda in 655, Oswy became overlord of Mercia and — according to Bede — 'also subdued and made tributary most of the Picts and Scots in the north of Britain'. He is listed by the *Anglo-Saxon Chronicle* as a *bretwalda* — effectively over-king of Anglo-Saxon England — and the kingdom and tributary dominions he bequeathed to his son, Egfrith, can only be described as a Dark Age super-power.

Egfrith, whose name translates from Old English as 'the sword's edge', proved a fierce defender of all these vast territories. Eddius, the contemporary biographer of Egfrith's bishop Wilfrid, tells how the new king dealt with a Pictish revolt in the second year of his reign.

'With the help of his brave thane Beornheth... (Egfrith) slaughtered an immense number of their people, filling two rivers with the corpses, so that their slayers crossed the rivers with dry feet in pursuit of the crowd of fugitives; and their tribes, reduced to slavery, remained subject under the yoke of captivity.'

Two years later, in 674, Egfrith was defending his southern frontier against a Mercian-led alliance commanded by Wulfhere, a son of Penda, and — according to Eddius — 'slew countless numbers of them and put the king (Wulfhere) to flight'.

For all these early successes as a warrior king, the vast Northumbrian *imperium* — effectively all the lands between the Trent and the Tay — was to prove ultimately indefensible. When Aethelred succeeded Wulfhere as king of Mercia, the pressure on Egfrith's southern frontier was renewed and the outcome of the battle on the Trent in 679 was at best a stalemate, snatched from the jaws of defeat by the peace-making diplomacy of Archbishop Theodore of Canterbury. If the border with Mercia was held in a state of truce by the early 680s, the situation on the northern frontier beyond the Forth was growing ever more ominous.

Bruide, king of Picts

For all their surviving wealth of art and archaeology, these people we call the Picts remain the most enigmatic of all the ancient

cultures of the British Isles. Unlike the Dalriadic Scots, who settled the western seaboard of Argyll from the north-east of Ireland at the end of the fifth century, the Pictish tribes had been settled in Scotland since prehistory. Their bloodstock mingled ancient Bronze Age peoples with later Celtic infusions, but all that is known of their history has been assembled from fragmentary survivals in the Irish and Scottish early sources.

They were certainly one of the most warlike of all the peoples of Dark Age Britain. They had resisted the advance of Agricola's legions in the first century AD and were still harassing the Northumbrian northern frontier seven hundred years later. 'No people', wrote the historian James Campbell, 'had so long a history as a menace on the same frontier.' They were always at their most menacing when the Pictish tribes, scattered across Scotland from the Ochils to the Orkney islands, were brought under the government of a single all-powerful over-king.

It would seem that a king of Picts came into his kingdom by matrilinear succession, by right of his mother's Pictish royal lineage. This meant that some kings of the Picts were the sons of Dalriadic, Britonic, or even English fathers. One such was Bruide, son of the king of the Britons of Strathclyde and a Pictish princess, who became king of the Picts of Fortriu on Tayside in the wake of the revolt crushed by Egfrith in 672. A sequence of sieges recorded by the Irish annalists through the early 680s indicates Bruide establishing himself as over-king of the tribes of Pictland until his 'destruction' of Orkney in 682 brought the Picts of the farthest north under his dominion.

Three years later, Bruide mac-Beli, king of Fortriu and high-king of Picts, presented so great a threat to Northumbrian power as to provoke a pre-emptive strike by Egfrith north of the Firth of Forth.

Causes of War

None of the Northumbrian sources record any incident which prompted Egfrith's advance against Bruide's Picts in 685. Neither do they identify his motive for sending the thane Berhtred, son of Beornheth, to ravage the plain of Brega in the east of Ireland in the previous year. It is nonetheless more than probable that the two expeditions were in some ways related and the most plausible

explanation must be Egfrith's fear of rebellion across a wide front by a coalition of northern enemies.

Bruide was growing daily more powerful and he was the son of a king of Strathclyde, the last surviving power base of the Celtic north Britons by the end of the seventh century. Northumbria had long since annexed the Britonic kingdom of Manau on the Forth, driving its Gododdin warbands into Pictland and across the sea to Ireland. The Scots of Dalriada, long tributary to Northumbria according to Bede, were being drawn at the same time into the orbit of the Strathclyde Britons. Not only would all of those potential hostiles have been able to find a warlord in the mighty Bruide mac-Beli, but Egfrith's illegitimate half-brother, the scholarly Aldfrith born to Oswy and an Irish princess, would have supplied them with an ideal candidate for a puppet-king of Northumbria if Egfrith were to be overthrown.

The Advance into Pictland

Through the spring of 685, Egfrith was occupied with a royal tour of Northumbrian monasteries, which might well have been a last appeal for divine support in the warfare which was to follow. From Jarrow on the Tyne, he would have marched overland, either across the Tweed and over the Lammermuirs or following the coastal route by way of Dunbar. He would have joined forces with the warband led by the thane of *Dynbaer*, if not at Dunbar itself then at *Dun Eidynd*, now the site of Edinburgh Castle but then the hillfort of the Britons captured for Northumbria in 638 by his father, Oswy.

Egfrith's advance led up the Forth valley and crossed the Firth either at Abercorn, the seat of the Northumbrian bishop of Pictland, or Stirling, the site of another Gododdin stronghold seized by Oswy. Egfrith would have certainly crossed the Tay near Perth and pressed on up Strathmore between the Sidlaw and Grampian hills before turning south near Forfar to advance on Dunnichen. Such a route would well correspond to the 'inaccessible mountains' described by Bede in his account of events.

'The king rashly led an army to ravage the kingdom of the Picts, against the urgent advice of his friends and in particular of Cuthbert, who had been recently made bishop; and when the enemy feigned flight, he was drawn into a narrow pass in the inaccessible mountains and killed with the greater part of his forces.'

It might now be possible, when the evidence of the early sources is matched with an Ordnance Survey map, to suggest a somewhat more military historical account of the fight at the pool of the herons.

The Battle Reconstructed

Egfrith's march from Forfar would have

advanced on the battlefield from the north-west. It must be noted here that there is no contemporary record of the numbers of fighting-men involved at Nechtansmere, but the size of northern armies in comparable major conflicts such as Catraeth (c.590) and Degsastan (603) has been convincingly estimated in the low thousands. Egfrith's host might thus be reasonably proposed as no greater than three thousand men, while the Picts, fighting on their home ground around a strategic hillfort and possibly with Britonic and Dalriadic allies, would almost certainly have outnumbered the English, although probably by less than a factor of two to one.

The tactics which won the day are more assured and amount to the familiar device of presenting a small force to the enemy, pretending to take flight, and thus luring him into an ambush. As Egfrith's forces advanced through the Pictish heartland of Tayside, they were moving through hilly and heavily wooded country which provided abundant cover for concealed archery. The Picts seemed always most effective as guerrilla fighters and there is archaeological evidence from a carved stone of their use of a form of crossbow, so it is more than likely that the Northumbrians were under constant sniper attack on the march. Warriors harassed by bowmen and already taking casualties in unfamiliar terrain may not have even been aware that the hill ahead of them was fortified. When they saw a small enemy force take to sudden flight at their approach, the Northumbrians would have charged in pursuit believing themselves to be superior in numbers and battle-glory. That impulsive charge would have brought them round the side of Dunnichen Hill and beneath the ramparts of the enemy hillfort. They would have been under attack from those ramparts and faced with a great host of enemy warriors forming up to confront their onslaught, while another Pictish warband could have been brought up to block their retreat. Thus the Northumbrians would have been cut to pieces entrapped between the ramparts of Dun Nechtain and the marsh at the edge of Nechtansmere.

By three in the afternoon on Saturday 20th May, 685, the battle was over. Egfrith lay dead and with him his loyal bodyguard of thanes and the greater part of his army. Bede is quite specific as to the date.

'He was in his fortieth year, the fifteenth year of his reign and the date was the thirteenth of the kalends of June (20th May).'

The Aftermath

Bede, writing in 731, was the first of the many historians who have identified the battle as marking the end of the Northumbrian ascendancy.

Symeon of Durham draws on Lindisfarne tradition to record Egfrith's corpse taken up from the battlefield beside Nechtansmere and

laid in earth, probably with due honours, in the hallowed burial ground of Scottish kings: 'His body was buried in Iona, the island of Columba.'

Bruide lived on for another eight years after the battle. He died, apparently peacefully, in 693 and was also interred on Iona.

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This carved stone, in the churchyard at Aberlemno near Forfar and just six miles from the battlefield of Nechtansmere, has been dated to the eighth century. One face is carved with a decorated cross, but the other is dominated by the only full-scale battle scene to have survived in Pictish stone-carving. The two opposing warbands are clearly distinguished: bare-headed warriors — advancing from the left — wear their hair and pointed beards in the same style as figures on other Pictish stones, while their enemies — ranged to the right — wear helmets with prominent nasal guards and closely similar to the eighth-century Northumbrian Coppergate Helmet from York. The battle is evidently being fought between Pictish and Northumbrian forces and the enigmatic Pictish symbols which appear above it are taken by archaeologists to confirm the significance of the conflict. There can be little doubt that this stone was carved to commemorate the great victory of the Picts at the pool of the herons.

The Aberlemno carving can also tell us something about the weaponry and tactics employed at Nechtansmere. The top row shows a Northumbrian who has flung away his sword and shield as he flees from a mounted Pict. The design of his sword hilt and pommel are clearly indicated as is the shorter, blunt-ended and typically Celtic sword brandished by his pursuer. The second row indicates something of Pictish infantry tactics. The front man raises his curved shield fitted with a spike boss and wields his sword, while the man behind has levelled his spear to cover him against the oncoming Northumbrian rider and a third Pict stands with his spear at rest. The bottom row shows two riders in single combat, the Northumbrian holding his horse's head back as he hurls his spear towards the Pict, who lets his horse run unreined, raising his shield in defence and making ready to throw his own spear. The last scene in the bottom right-hand corner shows a Northumbrian — drawn larger than the others to emphasise his importance — falling under attack from a carrion bird. 'Prey to the ravens' was the death-metaphor found throughout Dark Age battle-poetry and the falling warlord must surely represent the battle-death of Egfrith, king of Northumbria, beside Nechtansmere.



The Victorian Soldier

JULIAN HUMPHRYS of the National Army Museum describes their new permanent gallery and some of the exhibits to be seen there.

The opening of the new Victorian Soldier Gallery by General Sir Peter Inge GCB ADC Gen, Chief of the General Staff, is an important milestone in the history of the National Army Museum. The five year plan produced by the Museum in 1988 established a major programme of development and refurbishment. The first phase of this redevelopment was completed at the end of 1990, with the opening of the Road to Waterloo Gallery, and in April 1992 a new Permanent Display was opened dedicated to extending public knowledge of the War fought by the United Kingdom and its Allies in the Far East between 1941 and 1945. Now, the third phase of that programme has been completed. As Museum Director Ian Robertson says, 'this marks a return to the very heartland of the Museum's collections, an historical period when, in the opinion of many, the British and Indian Armies attained their zenith'.

The term *Victorian Soldier* has been used by the Museum to span the entire period from the end of the Napoleonic Wars to the outbreak of the Great War in 1914. Among the items on display are: 19 full-length figures in uniform, 36 half-length figures, 43 head dresses, 29 firearms, nine colours and flags, four Field Marshal's batons, 600 orders, decorations and medals, including 53 individual groups, the only New Zealand Cross in the northern hemisphere, and 14 Victoria Crosses, including the original prototype.

A set of iron fetters in the African section is a reminder of one of the less well known campaigns of the Victorian period, fought over difficult mountainous terrain at the end of very long supply lines: the Abyssinian War of 1868. In the process of expanding his territories the Coptic Christian King Theodore II of Abyssinia had sought assistance from the British Government. Enraged by the Foreign Office's failure to reply to one of his communications, Theodore seized a number of European hostages, including Captain Charles Cameron, the British Consul, who was kept in chains for two years. The conditions endured by the hostages varied greatly as Theodore's treatment of them seems to have

varied from kindness to cruelty according to his mood. Negotiations and gifts failed to bring about the release of the hostages and by June 1867 the British Government reluctantly concluded that military intervention was unavoidable.

An army of British and Indian troops under Sir Robert Napier was duly despatched from India and in January 1868 it began its advance across 400 miles of inhospitable terrain towards Theodore's mountain fortress at Magdala. On 10 April Napier defeated an Abyssinian attack and, three days later stormed Magdala, where Theodore committed suicide. The campaign saw the revival of khaki in the British Army and the first major use in action of the Snider Rifle (also displayed in the Gallery), a breech-loading conversion of the Enfield. Its rapid rate of fire enabled Napier's British troops to mow down the charging Abyssinians in droves.

Not all the innovations displayed in the Gallery were unqualified successes. The Other Ranks Experimental Pattern Hat of 1842 was designed to give the wearer protection from both sun and rain. However it was not greeted with much enthusiasm, perhaps because it bore a marked resemblance to the traditional hat worn by Welsh ladies! A British German Legion Officer's pouch and pouch belt in the Crimean section bear witness to that seemingly perennial problem for the British Army — a shortage of infantry. The Legion was raised between May 1855 and March 1856 on the instigation of Prince Albert, who offered to drill the Germans himself. Eventually 441 Officers, 539 NCOs and 8702 Other Ranks served in the Legion, which consisted of three Jager Battalions, 5 Light Infantry Battalions and two Regiments of Light Dragoons. Of these, the 1st Jagers and the 1st, 2nd and 3rd Light Infantry served in the Crimea. On their departure from the Crimea in July 1856, many accepted the offer to settle in the Cape of Good Hope on the understanding that they would continue their military training and be ready to fight again if required. In 1857 over a thousand volunteered for service in India but upon their arrival cholera destroyed them as an effective fighting force.

These are just a few examples of the objects on display and the stories behind them. The Museum hopes that its visitors will find the new Gallery not only a carefully researched and well-presented display but



Telescope, c1854, used by Field Marshal Lord Raglan during the Crimean War. The telescope is mounted on a skeleton stock to enable Raglan to hold it with one hand. Raglan's right arm was amputated in 1815 as a result of a wound he received at Waterloo while serving on Wellington's Staff. Raglan may well have watched the events of Balaklava through this telescope.



The cloak worn by Captain Louis Edward Nolan, 15th (The King's) Light Dragoons (Hussars). Nolan was ADC to General Airey, Raglan's Quartermaster-General and carried the Order for the Charge of the Light Brigade to Cardigan.

also a suitable memorial to the thousands of men who served in the Armies of Britain and her Empire between 1816 and 1914. The National Army Museum is in Royal Hospital Road, Chelsea, London SW3 4HT, a short walk from Sloane Square Tube Station. It is open daily (except 1 January, Good Friday, Early May Bank Holiday and 24-26 December) and admission is free ●

Bryan K. Fosten

Among the most respected military costume artists published today, Bryan K. Fosten is a self-taught artist. ROD HOPKIRK recounts his career and speaks to him.

The son of a master military embroiderer and a Court embroideress, Bryan K. Fosten was born in 1928 in London. With such a background it seems fate that he should spend his life documenting and illustrating the details of military uniforms, but although encouraged by his parents to pursue his artistic talents, he enrolled as an apprentice of printing and gained a City and Guilds qualification in typography. For the next thirty years, his main career was in the

printing industry, interrupted only by serving with the army in Egypt and Palestine. In 1972, he became Production Manager of a technical newspaper, but after two years decided to set up on his own and founded Pimpnel Studios, devoting himself completely to military research and illustration.

Back in the late 1950s, Bryan had already begun to make his mark on the military history scene. He was the founding editor of *Tradition*, the pioneering magazine which helped popularise the hobby of military costume research. Through its pages he became acquainted with many of the well known names in military history, research and illustration. 'I had an interest in military modelling at this time,' he recalls, 'which

made me realise the complexities of military uniform and the fact that few illustrations showed a complete uniform back and front. From that time I have endeavoured to remedy this anomaly.'

Bryan began to illustrate military uniforms for *Tradition* and then *Military Modelling* magazine. 'Being a complete primitive with no formal art training at all I tried to improve my draughtsmanship and technique. I managed to develop my own style by studying the techniques of any artist whose style I liked. In the 60s I was for a time a technical representative for my firm and as my area was central London I managed to spend plenty of lunchtimes in the great London galleries, especially the National Gallery. I was well aware of my limitations



Grenadier, First Foot Guards, 1751



'Tommy', Private, Royal Sussex Regiment, 1890, plate from *Kipling's Soldiers* published by the Pompadour Gallery.

and really struggled in the early days to improve.'

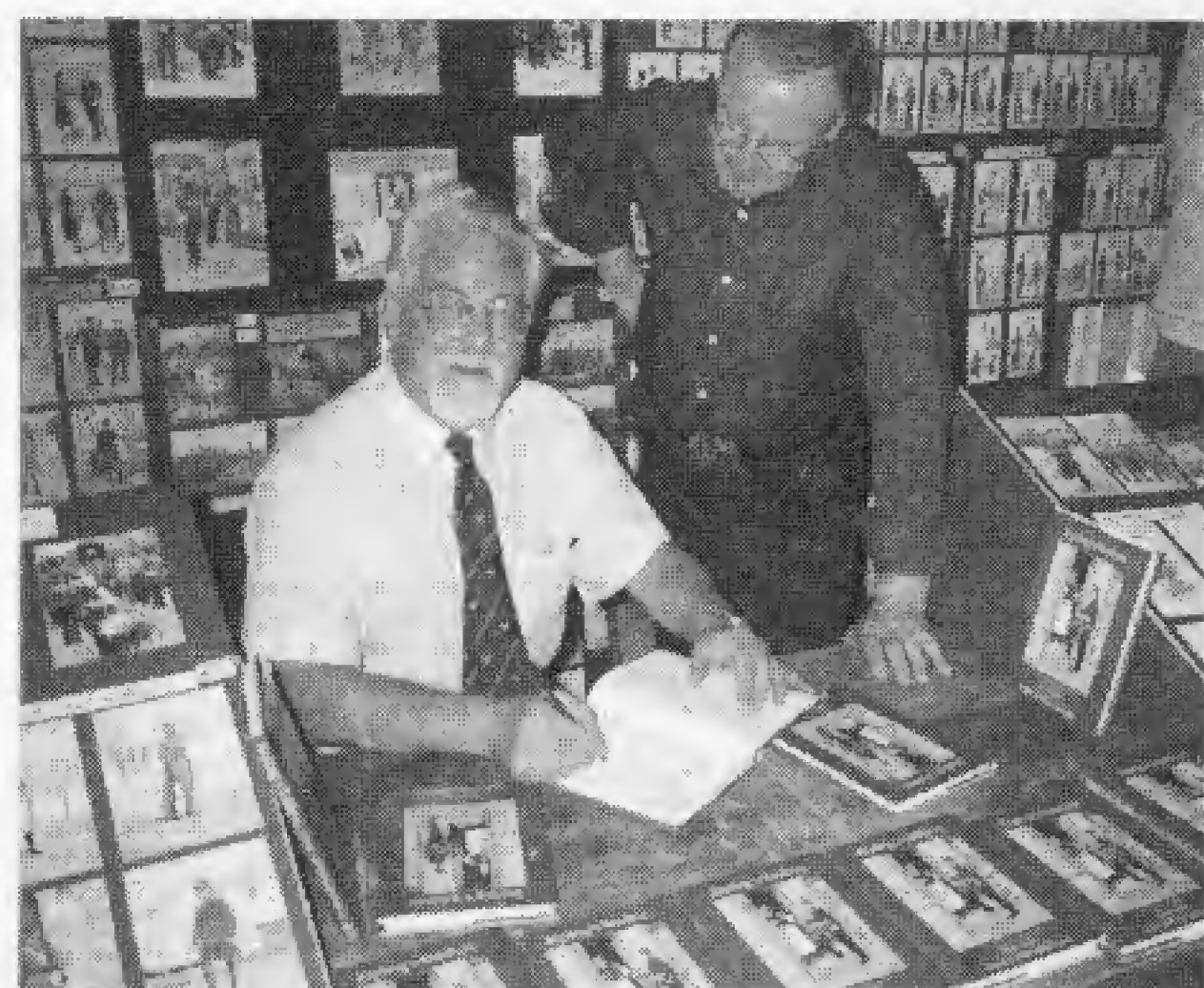
With his brother Donald, Bryan began to seriously research military costume and to write and illustrate short articles. Together, they visited the Victoria and Albert Museum week after week copying notes from the work of P.W. Reynolds as well as German, French, Austrian, and Russian illustrated books. "In fact with only a few weeks respite we spent every Saturday for seven years in the V & A library. Sometimes we dragooned Donald's wife into service to copy out notes while we sketched details from the illustrations." They found other sources at the War Office Library, the Imperial War Museum, and the Ogilby Trust, and they joined the Society for Army Historical Research and the Military Historical Society.

Bryan has always worked closely with his brother Donald and they share an extensive book and photographic collection. Neither of them drive and both have converted their garages into studies with walls lined from floor to ceiling with shelves. Since setting up as a freelance artist in 1974, Bryan has illustrated over forty books, several co-written with Donald, one of the most respected and successful projects being a series of plates illustrating uniforms of the British Army which were put together and

published as a book by Windrow & Greene entitled *The Thin Red Line*.

For fifteen years, Bryan illustrated a series of articles for *Military Modelling*, firstly with Roy Dilley called 'Famous British Regiments', then a second series with Donald called 'Cut the Cloth'. During this time, Bryan also wrote a monthly column on modelling techniques aimed at the beginner. 'I wrote this series under a pseudonym and had lots of fun, with the editor Ken Jones, deliberately misleading people as to the true identity of 'Stan Catchpol'.' But Bryan was well placed to give advice on modelling. For twenty five years he was a committee member of the British Model Soldier Society and editor of its magazine for nine years, being made a Fellow of the Society in 1969. For much of this time he was also a judge at their competitions.

Bryan now has a world-wide list of clients who commission paintings, especially collectors in the United States, and his order book is full for the next two years. He also includes Regimental Museums among his customers and is currently involved in an ongoing project with the Pompadour Gallery in which he is seeking to revive the old tradition of military artists such as Harry Payne, creating a series of popular postcards illustrating the history of regiments and units



Bryan Fosten signing copies of his artwork.

around the world (19 sets of cards so far). Also with Pompadour, he has illustrated a book *Kipling's Soldiers* (see review p. 8) which depicts scenes from Kipling's verse.

After twenty years as a freelance artist, Bryan has realised that 'during that period my family and I had only four holidays. It's time for me to relax. I've stopped illustrating books and now only accept work on the premise that it is done in my time. I've had a holiday, a couple of long weekends, and my wife is really enjoying visiting those museums we never had time to see!' Which all serves to make Bryan's work even more valuable.

Belgian Rattlesnake

The Lewis Gun

As the first light machine gun to be issued in great numbers on the Western Front, the Lewis Gun had an immediate impact on the tactics of trench warfare. DR. STEPHEN BULL analyses its design and application.

The Lewis gun was originally the brainchild of the American Samuel Maclean. He saw it not as a 'light' weapon, but, as first patented, a tripod mounted medium or heavy machine gun which would be a viable alternative to the Maxim. It was only when further developed and promoted by his countryman, Colonel Isaac Lewis, one time secretary of the U.S. Ordnance board, that the gun was recognised as an innovative departure. The mechanism of the Lewis was based on a turning bolt system similar to that used in the Swiss Schmidt-Rubin rifle. Automatic fire was achieved by means of a gas operated system, a piston being driven back after the first shot, withdrawing the striker, unlocking the bolt and rewinding a helical spring'. About six of the air cooled Lewis guns could be produced with the time and expense that it took to make a water cooled Vickers.

Despite its potential advantages the Lewis gun was not immediately adopted by the United States. Production began instead at *Armes Automatic Lewis* in Liege Belgium in 1913. British experts were soon aware of the new gun as Colonel Lewis had visited Birmingham Small Arms to consult with the company on the making of barrels, and in

November of 1913 the new weapon was demonstrated at Bisley in the presence of British and foreign government representatives. The first tests were remarkable, being carried out from a two man Graham White aeroplane. Lieutenant Sellingwerf of the Belgian army sat in an improvised seat and manned the Lewis which was fixed to fire ahead or below, and succeeded from a height of 500 feet in putting 11 rounds out of 14 into a white sheet placed on the ground. Terrestrial tests demonstrated the weapon at 200 and 500 yards and also showed that the gun could be fired inverted or at any angle. As a result several governments placed trial orders.

When war came in 1914 only 50 men were employed on the manufacture of Lewis guns and only the Belgian army was in a position to deploy them with its fighting troops on the ground. During their retreat they made good use of them, and according to one source the Germans respectfully christened them 'Belgian Rattlesnakes'. By July of 1915 there were enough guns being produced in Britain for the British army to begin an issue of four per battalion.

On Boxing Day 1915 a general routine order was given that an issue of khaki paint be made so that the casings of the Lewis guns, which had originally been provided unpainted, could be camouflaged. At about the same time numbers were being upped to one gun per platoon or 16 per battalion and Vickers machine guns were withdrawn from the infantry battalions and brigaded into

Machine Gun Corps 'Machine Gun Companies'. The Lewis was thus left as the sole automatic weapon of the infantry battalion.

By now Lewis guns were in their own sections controlled at first at company level, later at platoon level. These Lewis gun sections were generally eight men led by a junior N.C.O., and apart from those in the team allocated to firing the gun and to carrying it and its spares, three men were nominated ammunition carriers.

According to *Notes on the Tactical Employment of Machine Guns and Lewis Guns* issued in 1916 the Lewis gun was best used with the attack or in the front line trenches, unlike the heavier Vickers which was better placed in the second line. The Lewis was at first defined as an automatic rifle, this categorisation was no doubt due to the fact that it was incapable of sustained fire because of the lack of a water jacket and was best suited to short bursts. The Lewis was regarded not as a substitute for the Vickers but as a supplement.²

On the defensive they were to be used to economise on manpower in the trenches and to cover depressions and approaches which could not be seen from set machine gun emplacements. Although the Lewis would not usually warrant a specially prepared emplacement it was advisable to identify firing places, either depressions in the parapet, or loopholes. Methods varied however, and Captain F.C. Hirschcock of 2nd Battalion the Leinster Regiment was one of those who preferred to dig Lewis Posts in the form of small branches off the communication trenches close behind the main fire trench. In the offensive the Lewis was described as:

'particularly adapted for providing covering fire from the front during the first stage of an attack. Lewis gunners under cover of darkness, smoke, or artillery bombardment, may be able to creep out in front and establish themselves in shell holes, ditches, crops, long grass etc. where it will be difficult for them to be detected, and where they will be able to fire on the enemy machine gun emplacements, loopholes and parapets generally, and to assist the infantry to advance.'

The Lewis was not to be sent forward in the first wave against enemy trench lines but as rapidly as possible behind. In open warfare it might prove possible to have Lewis gunners



Royal Navy Lewis gun party with native porters at Lindi, East Africa, July 1917. Several of the Lewis

guns are mounted on tripods and none have 'field mount' tripods.



Lewis gun section, probably of the Worcestershire Regiment, Ovillers, July 1916. The gun is used with the bipod folded and the gun rested directly on the

parapet of the trench. The firer wears 1908 Pattern webbing and a 'PH' anti gas helmet slung in a bag. (IWM)

with the leading line, where they would move, and appear to the enemy as, ordinary riflemen. In summary the Lewis was thought valuable for eight main purposes:

- (I) To supplement the fire of infantry and machine guns.
- (II) To economise infantry in trench warfare and in defensive positions.
- (III) Firing from the parapet to command ground which cannot be swept by machine gun fire.
- (IV) To provide covering fire from the front during an attack.
- (V) To assist the consolidation of positions won.
- (VI) For small enterprises, where the weight and visibility of the machine gun would render the latter unsuitable.
- (VII) As a means of reinforcing a line of infantry with additional firepower, under circumstances where the deployment and sending forward of more men would result in heavy losses.
- (VIII) To provide a mobile reserve of fire in the hands of company commanders.³

Despite the havoc which German

machine guns wrought upon British infantry on the Somme, the Lewis gun was one weapon with which the Germans felt totally outclassed in the summer of 1916. Writing on 5 July General Von Stein remarked on the 'large number of Lewis guns which were brought into action very quickly and skillfully in newly captured positions'. He further remarked that 'It is very desirable that our infantry should be equipped with a large number of light machine guns of this description in order to increase the intensity of fire.'⁴ In any event captured Lewis guns became highly prized booty.

Methods of transportation for the Lewis varied. In battle they were invariably carried, but on the march they were drawn in small handcarts. Horsedrawn limbers available later in the war were capable of carrying four guns with spares, 22 magazine boxes, 176 filled magazines and 9,000 rounds of spare ammunition, a total weight of 1,949 lbs.⁵ Spare magazines were often carried by gun numbers in web bags, which came in several slightly varying patterns. A four pouch carrier was introduced in July 1916 and appears in film footage of the battle of the Somme. Extracts from routine orders stated

that indents were to be submitted one for every four magazines held. Formal *Instructions for wearing the Equipment for carrying Lewis gun magazines* were produced in 1917.⁶

As this document noted, the web carrier had the advantage that both hands were left free for the rifle. The pouches were suspended in pairs over each shoulder, and connected by an adjustable web strap which formed a belt around the body. Each pouch was capable of receiving one or two magazines. Also introduced in 1916 was a metal box with a leather carrying strap capable of carrying eight magazines in two carriers and a magazine loading handle.

In December 1917 General Sir Ivor Maxse suggested that in the light of increasing manpower problems that the number of Lewis guns be scaled up. During 1918 this was deemed important enough that the total number of guns be upped to 36 per battalion, two per platoon, and four for anti-aircraft use with battalion headquarters.⁷ In the anti-aircraft role tubular metal tripods, very much like music stands, were issued. These supplemented rather than entirely replaced the multitude of improvised posts, upturned wheels and pintle mounts that preceded them.

Pressure from enlightened thinkers within the army, and then the shock of the German spring offensive, led to modifications in tactics. Rather than have all the Lewis guns locked into the attacking waves, sections of light machine guns were now put on a par with the bombing parties. Gun sections were now employed in 'worm' formation 'dribbling up' to the attack; scouts would precede the Lewis in bounds on the direction of the section leader and the remaining members of the team would follow up and flank the Lewis gunners. Fire was best directed not straight to the front but to the sides assisting the advance of neighbouring troops.

Just such a formation was adopted by 2nd Battalion the Royal Welch Fusiliers near Hamel in July 1918:

'The companies carrying out the main attack were C, B, and D, to whom Engineers for demolitions were attached. They were to advance in line, each having two assault platoons on a front of 175 yards... Assault platoons consisted of a bombing section in each flank and a Lewis gun section between, the sections to advance in 'worm' formation. The

C.O. allowed companies a large latitude in making their dispositions but he supervised everything.⁸

The attack was a success, despite a German attempt to take the attackers in the flank, seventy of the enemy being killed and captured for rather less severe loss amongst the attackers. A little while later one company of the battalion went so far as to name its Lewis guns *Spitfire*, *Wildfire*, *Gunfire* and *Hellfire* in one half and the serpentine names *Viper*, *Adder*, *Cobra* and *Asp* in the other.

Slings intended for carrying the Lewis when hot were introduced in late 1916. A few brave men with a limited sense of self preservation soon found another use for the sling, as was demonstrated by the Australian Corps attacking at Hamel in July 1918.

'In cases where a tank was not immediately available to clear up a hostile nest, one of the guns of the L.G. section, carried on a sling and fired from the hip, gave sufficient cover for the remaining gun to come into action deliberately. In conjunction with rifle grenades, fired by a proportion of each of the rifle sections, sufficient assistance was provided for the infantry to overcome the local opposition.'⁹

From uncertain beginnings Lewis gun training became an important part of battalion work. Each battalion had its own Lewis gun officer who was himself trained in army schools; one of the best known of which was at Le Touquet near Etaples. When out of the line Lewis gun sections would be instructed by the Lewis gun officer and experienced N.C.O.s with the aid of manuals, practical demonstrations and tests as well as firing practice.

Trained Lewis gunners were entitled to wear a badge. Initially this was identical to that worn by Vickers machine gunners, with an MG in cloth or brass, but army order 80 of 1917 confirmed what already seems to have been happening, and MG was supplanted by LG for first class Lewis gunners.¹⁰ The points to be taught to Lewis gunners were spelt out in detail in the May 1917 official publication *Method of Instruction in the Lewis Gun*.¹¹ This document divided the syllabus into eleven sections the first four dealing with general description, stripping, the mechanism, and points to be remembered during and after firing. Sections six to nine dealt with drill, cleaning and stoppages.

This last was particularly critical, for despite its relative modernity and great tactical benefits the Lewis was quite prone to jamming in the mud of the trenches. At least seven major categories of stoppage were identified in training including several which could be cleared rapidly by 'immediate action'; these included misfires, failures to load, fouling and bent magazines. There

were, however, more serious, and fortunately less frequent failures, which could relegate a gun to single shots or put it out of action for much longer. These included broken strikers, weak return springs, broken cartridge guide springs and damaged extractors and ejectors.

Section ten of the syllabus was devoted to a series of short tests. The first of these was to run five yards and bring the gun into action with the sights reasonably well adjusted in ten seconds. The next was a magazine change in three seconds, and the last was to hand fill a magazine in less than one minute fifteen seconds. The last subjects tackled were on the range itself, including grouping, traversing, and application of fire.

Methods of instruction ended with useful tables of spare parts and ancillary equipment for Lewis gun sections in action and armourer sergeants. Amongst the most interesting items listed were short butts, approved for Bantam battalions and authorised in May 1916; phosphorescent night sights; binoculars and revolvers. Contrary to information published elsewhere both the number one and number two of the Lewis team were allowed to carry revolvers, a point confirmed by GHQ in 1916.

By the end of the great war Birmingham Small Arms had made 145,397 Lewis guns. Of these 32,168 were in the hands of British fighting troops and a further 3,367 in reserve on the lines of communication. The British Army therefore had three times as many Lewis guns as Vickers, and six times as many Lewis guns as Hotchkiss weapons. Many more Lewis guns of various types were in the hands of the airforce, navy, and allies. The Savage arms company at Utica, New York, had also produced the Lewis in .30 calibre, and a small number in .303 inch. The Russians, Japanese, Belgians, Italians, and Portuguese all had Lewis guns as main or supplementary arms.¹²

In 1919 the Machine Gun Corps was disbanded and the Vickers rejoined the Lewis in the infantry battalions of the British Army. For the first time the automatic fire power of the battalion topped 40 barrels. The Dutch army also adopted the Lewis in 6.5mm calibre in 1920. With the introduction of the Bren in the late 1930s Lewis guns were gradually moved into reserve. In 1940, however, the fall of France, expansion of the army, and the requirement of huge numbers of local defence weapons for ships, vehicles, and airfields, gave the Lewis a new lease of life.

Such was the demand for machine guns that 500 Lewis guns were actually ordered for the Admiralty from Belgium in April 1940. The order was scuppered by the intervention of the Wehrmacht, but nonetheless many reconditioned Lewis guns did reach Britain from the U.S.. Of these 1,157 were ground weapons and 38,040 aircraft weapons. Most went to the Home Guard where they received

the designation *Savage-Lewis* and a red band around the muzzle to remind Guardsmen that they were chambered for .30 calibre ammunition. The aircraft guns first appeared without bipods so 13,000 of these were ordered from a British contractor; also produced in the period 1940 to 1942 were anti-aircraft sights, new handguards and grips, skeleton stocks and a plethora of spare parts. A handful of new guns were also assembled using cannibalised parts from old weapons and new spares.

Estimates vary but it is believed that in excess of 100,000 Lewis guns saw use with British forces in World War Two. Their best service was in ship and vehicle mounted defence roles as their relative weight and bulk were not apparent and the absence of a trailing belt was a positive feature.

New training material was also produced between the wars and during World War Two. According to the 1939 *Small Arms Training* manual, the main characteristic of the Lewis was its ability to deliver volume fire with the use of a few men to an effective range of 1,000 yards. There were, however, significant points to be noted:

'To avoid overheating, strain and excessive expenditure of ammunition, and at the same time to produce the necessary volume of fire as well as maintain accuracy, it is best to fire in bursts of four or five rounds. The accuracy of the gun permits of only a small margin of error in aiming, range estimation or allowance for the atmospheric conditions. Accurate observation of fire is therefore essential. If less than four or five rounds are fired in a burst, observation will be possible only in the most favourable circumstances.'

As the more colloquial *Know Your Weapons Series* aimed at the Home Guard put it 'take your finger off the trigger for a while and get to know something about the gun before you have wiped out the whole of the German Army'.¹³ A good deal of training was identical to that of 1918, but some points did receive additional attention, notably anti-aircraft mountings, handling and use of cover.

For AA use it was recommended the guns be placed under cover, or at least in the shadow of a building. The team to operate against aircraft was officially three; a section commander to position and direct the weapon; a 'number one' to fire and a 'number two' to change magazines and keep up ammunition supply. The ideal anti-aircraft load was three rounds of tracer to one of standard Mk VII ball ammunition, and contrary to the normal sparing, short burst, ground use, firers against air targets were encouraged to 'hosepipe'. Correction was done by 'aiming off' ahead of the target and using the tracer trails. A training aid occasionally seen with the Lewis for AA use

was the spotlight projector which helped instructors to see exactly where their pupils were aiming.

Advanced ground handling training assumed a team of two and taught the troops fire and movement, making the best use of cover. Techniques included mounting the gun to fire from cover without the use of the bipod, crawling on one's side with the gun cradled against the knee, and the use of trenches.¹⁴ One rather curious piece of training equipment used by the Home Guard, but which may have been invented earlier, was the grandly named fire simulator. This was nothing more than a form of football rattle mounted on the side of the barrel casing, the working of which made a clacking noise indicative of fire during exercises.

The Lewis gun was finally declared obsolete in British service in 1946, but did not immediately disappear from the world stage as a number of small countries had supplies, including Norway, Honduras, and Nicaragua. Though in later life the Lewis was criticised for its stoppages, and being

bulkier and a few pounds heavier than the much loved Bren, the Lewis had been a timely invention. It helped prove the viability of man-carried automatic weapons and made a remarkable contribution to small unit tactics •

Notes and Sources

- 1 J.D. Truby *The Lewis Gun*, Boulder USA, 1976, appears to be the only full length work on the gun. It is especially useful for early development, American, vehicle and aircraft use. See also I.V. Hogg and J. Weeks *Military Small Arms of the Twentieth Century*, London 1977, pp 222-227, and C.H.B. Pridham *Lewis Gun Mechanism made Easy*, 1942.
- 2 *Notes on the Tactical Employment of Machine Guns and Lewis Guns*, General staff, September 1916, passim.
- 3 *Tactical Employment*, p19
- 4 *Lessons Drawn from the Battle of the Somme by Stein's Group*, Translation of a German document, British General staff, October 1916. The German shortage was at least partly filled by the MG 08/15.
- 5 See also M. Chappell *Light Machine Guns*, Hatherleigh, 1988 pp 5-9.
- 6 *Extracts from General Routine Orders*, part II, January 1917, 'GRO' 1695; 18.7.16. *Instructions*

for Wearing the Equipment for Carrying Lewis Gun Magazines, October 1917.

7 S. Bidwell and D. Graham *Firepower*, London 1982, pp 126-127.

8 J.C. Dunn *The War the Infantry Knew*, London 1987 edition, pp 497-498, 543. See also *The Tactical Employment of Lewis Guns*, January 1918, passim, and *Notes on Recent Operations*, April 1917, p 6.

9 *Operations by the Australian Corps Against Hamel*, July 1918, p 4.

10 D. Edwards and D. Langley *British Army Proficiency Badges*, Nottingham 1984, p 66.

11 *Method of Instruction in the Lewis Gun*, General staff, May 1917.

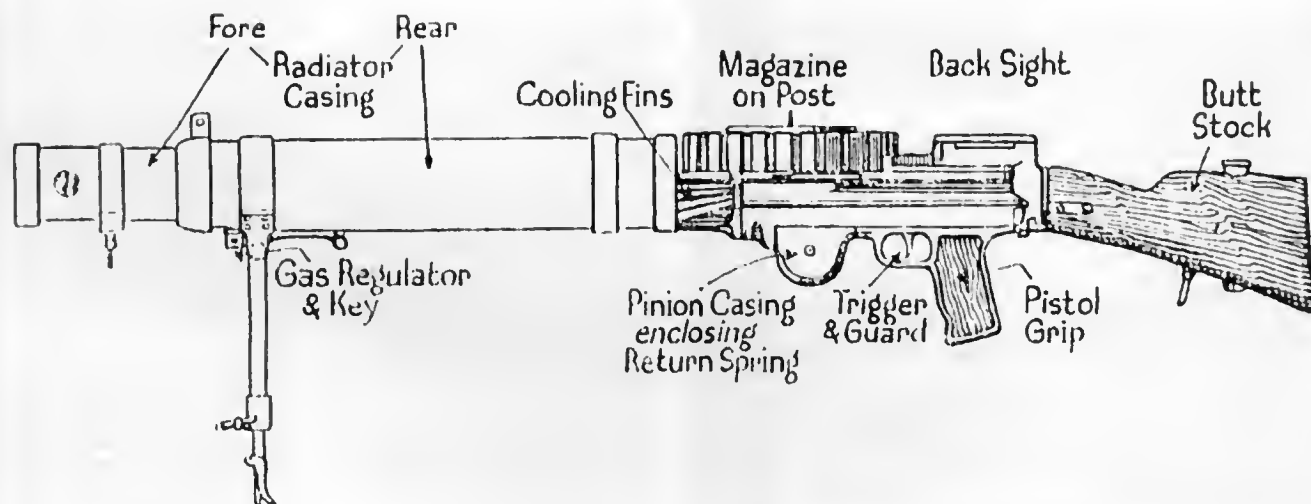
12 *Statistics of the Military Effort of the British Empire*, War Office, 1922, pp 406-407. D.M. Ward *The Other Battle, A history of Birmingham Small Arms*, York 1946, pp 25-28, and G.H. Frost *Munitions of War a Record of the work of BSA and Daimler*, undated.

13 *Small Arms Training*, Vol 1, pamphlet 20, .303 inch Lewis Gun, 1939, p 5 and G. Jacklin and D. Whipp *Know Your Weapons No. 2 The Lewis Gun*, London 1941, pp 3-5.

14 *Small Arms Training*, pamphlet 6, pp 32-40, also I. Skennerton *British Small Arms of World War 2*, Margate Australia, 1988, pp 58-60.

LEWIS GUN DATA

Length.	50.5 inches
Barrel.	26.25 inches, four groove left hand twist.
Magazine.	47 or 97 round pan.
Weight.	26 lb.
Cyclic rate of fire (theoretical)	550 RPM.
Muzzle velocity.	About 2450 feet per second.
Main variants:	
LEWIS .303 in Mk 1.	Original model sighted to 2000 yards with 47 round magazine.
LEWIS .303 in Mk 2.	With spade grip for antiaircraft use. A 97 round magazine introduced for this weapon in November 1916.
LEWIS .303 in Mk 2*	Modified from the Mk 2 to produce a faster rate of fire.
LEWIS .303 in Mk 3.	As Mk 2* but produced from new rather than modified.
LEWIS .303 in SS.	Officially introduced in 1942, but may have been made earlier. A modification for naval use without radiator assembly and a foregrip added.
LEWIS .303 in Mk 1*	A conversion of Mk 1 guns to Mk 4 standard. Few if any made.
Savage — Lewis .30 inch.	The American made Lewis; often distinguished by a red band around the muzzle when in British service to alert the user that it was not in the standard calibre.



A new series of price guides is now on the market and their diversity increases annually with more and more specialisation. The new one in the Lyle series on Militaria by T. Curtis has included a number of coloured plates mostly supplied by the American auctioneers Butterfield and Butterfield in California. There is one useful selection of Bowie knives which could serve as an identification section. The contents of the volume cover hundreds of different classes of militaria and arms and armour. It is primarily a record of prices realised in auctions but it can also help in identifying objects.

How reliable and useful are such price lists? If used correctly they are extremely helpful but if misused they can raise hopes and create problems. They must not be regarded as the final word on the question of value — they can only be indicators of relative values.

The illustrations are generally supplied by various auction rooms and this means that the range of objects shown is likely to be somewhat restricted. In general the larger rooms only illustrate those objects likely to be of particular interest and to make good prices. A glance at the Butterfield sections will confirm this for the prices realised for all the objects are high.

Another contributing factor affecting any price that is not mentioned is the date of the sale, for the prices realised by any group of objects can vary considerably over twelve months. Even more important and a feature that can not be shown, indicated or anticipated is that of the attendance at the sale. The absence of a particular dealer, the timing of the sale, weather and transport are just some of the circumstances that can affect the number of bidders at a sale. These factors can alter

the interest in the sale and consequently the prices realised.

Readers may recall that some months ago there was a great deal of publicity over a group of 'Wild West' historic weapons that were to be auctioned by Wallis and Wallis. Despite some very considerable press coverage and exposure they failed to reach their reserves and sell. They were re-submitted at a later sale and sold without reserve. The Colt Single Action Army revolver used to kill Wild Bill Hickcock sold for £10,000, the Jesse James percussion Colt made £5,250 and the .22 Winchester used by the James gang sold for £6,500. All a far cry from the Smith and Wesson revolver used to kill Jesse James which made £105,000 in the same rooms!

On Thursday 27th January Chris Allen of Philips had a very good sale of arms and armour with over 320 lots. The range of material was extensive with a number of very interesting pieces. There were over fifty lots of Japanese material. This is a very limited field with a comparatively small group of dealers and collectors. However the market is specialised and requires a good knowledge and understanding of the niceties of blades and their markings. The Japanese have a good and keen interest in their past and the sword figures prominently in their history. Japanese swords are seldom cheap and those that are seldom justify their expense. Condition is all important and one way to send a Japanese sword collector mad is to touch the blade with bare hands. Human sweat is disaster for the polished surface. Even issue World War II Japanese swords have resisted recession and regularly realise around £200 and more for one in reasonable condition. The prime item on offer is a large *tachi* or long sword with an estimate of

£2,000-£3,000.

The antique longarms section includes a Snider rifle that a year or two ago would have been counted as a weapon requiring a Firearm Certificate. The recent Home Office ruling has meant that such weapons of the calibre .577 may now be accepted as antique, requiring no certificate. Consequently prices of Sniders and other excluded weapons have risen considerably. The acceptance as antique applies only as long as the Snider is kept as a "curiosity or ornament". Should the owner wish to shoot the firearm then it becomes subject to restrictions and requires a certificate. This situation applies to all antique firearms. Just one more example of the complex legal position of firearms in this country. Each shooting incident seems to provoke somebody to demand

stricter firearms controls. Since Great Britain already has some of the sternest laws it seems illogical to claim that tighter controls could be any more effective than those in force now.

Among the other lots are two of the more elaborate 19th century European helmets. There is a Prussian Garde du Corps with its fine eagle crest and another of an officer of the Saxon Reiters with its lion crest. Estimates of £3,000-£4,000 for the first and £5,000 to £7,000 for the second. It is unusual to see so many cannon in one sale — eighteen in all and these included a fine 17th century Dutch bronze example with an estimate of £2,000-£3,000. With all the recent statements about the receding recession the results should be good, but who knows?

Frederick Wilkinson

Coming in next month's magazine:

The Last Barbarian

Helicopter Warfare in Africa

Macedonian Warrior

Colt Automatic

Re-enactors in the '90s

The Art of Ogden

Boer War Incident

D-Day Feature and Competition

